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MAY 1941



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# BUTANE-PROPANE

## News

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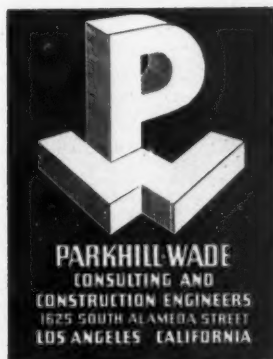
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G. GAMES.

MAY-1941

# LETTERS

Gentlemen:

Does temperature affect the volume of liquefied petroleum gases? How? Is there a standard temperature base used when bottles, tanks, bulk plants and other containers are filled? What occurs when the percentages of butane, propane and isobutane vary?

L. D.

California

*Yes, temperature does affect the volume of LP-Gases. The standard temperature base is 60°F. The rate of expansion varies according to the specific gravity of the mixture. See Chap. 4, Handbook Butane-Propane Gases, Revised Second Edition, "Volume Correction Factors for Liquefied Petroleum Gases."—Ed.*

Gentlemen:

I would like a position in any capacity in the LP-Gas industry—handling sales for manufacturers of equipment, for dealers or distributors in the domestic or commercial field. Also experienced in automotive and oil drilling applications. Have had three years' experience in mechanical engineering and 20 years in selling and sales management. Employed at present. Will go anywhere.

R. C. KINKAID

Colonial Hotel  
Shreveport, Louisiana

Gentlemen:

Would like information on standby equipment for industrial users of natural gas in quantities equal to 10, 20, 30, 40, 50 M.c.f. per hour of natural gas.

C.E.H.

Pennsylvania

*Standby equipment for industrial loads as indicated in your inquiry will consist of storage facilities, vaporizer, air blower or compressor, and equipment controlling the air-gas mixtures. Such installations require engineering investigation beyond the scope of this column. We refer you to our advertisers, several of whom specialize in this type of work.—Ed.*

Gentlemen:

We are interested in information relative to the types of burners, orifices and burner spacing to be used with butane and propane gases.

We understand that such facts are contained in your Handbook Butane-Propane Gases. If

this is correct, we would appreciate it if you would send us a copy of the Handbook, C.O.D.

P.E.

Missouri

*The information you seek may be found in our Handbook Butane-Propane Gases, Revised Second Edition, a copy of which has been mailed you.—Ed.*

Gentlemen:

Several months ago I was reading an article which I believe was in an issue of BUTANE-PROPANE News, although I cannot find it at the present moment.

It gave cost comparisons between cooking with gas and electricity. If you do not have the issue in which this appeared, would you kindly send me a reprint of it, as information of this sort can be used to good advantage in closing restaurant sales when in competition with electric companies.

W.C.U.

Oregon

*We are sorry to say, there are no reprints of the article named. It appeared in the issue of June 1939, and there are no available copies of that issue nor of any other issues for many months thereafter.*

*We expect to have another article on this same subject in the very near future, and we hope it will cover the points you have in mind.—Ed.*

Gentlemen:

I am interested in learning the value of butane-propane mixtures in aviation-type engines. What are the advantages and disadvantages?

H.S.

Illinois

*At the present time these fuels have not been used in airplanes except experimentally. Disadvantages include the fact that the weight of the tank is excessive and, so far as we know, there has not been an entirely suitable carburetor equipment developed for the airplane engine. A favorable fact is that the octane rating is 100 to 115 and the pounds per B.H.P. are .42 and .45.—Ed.*

● BUTANE-PROPANE News welcomes letters from our readers, but it must be understood that this magazine does not necessarily concur in personal opinions expressed.—Editor.

BUTANE-PROPANE News

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**MARK ANTON**  
Guest Editor for May

# Cooperation... The Life of Trade

By MARK ANTON

President, Suburban Gas Co., Livingston, New Jersey

**R**EAD that headline again. It is not the old trite song about competition, because certain kinds of competition can mean death, not life, to trade. Mind you, it's not the amount of competition but the kind of competition that's deadly.

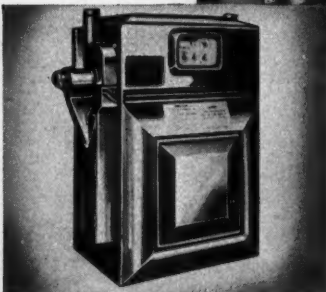
Too often, newcomers to this industry feel that their continued existence within it depends exclusively on assuming a hostile attitude. If you have somewhat recently engaged in this LP-Gas business the best advice that a so-called old-timer offers is that you go out and meet your nearest competitor. He may not know everything about this business but you can bet your last pant's button that he knows more about "some" things than you do. You certainly do have a right to earn your living in this industry or any other. That is the American Way. Simply because you were not especially invited to come in doesn't say that you are not most welcome to stay. But just as in every other civilized community some difference is usually paid to the "Elders." Don't expect your competitor to tell you the volume of his sales or his net profits, because he won't. But he's certain to impart some information that will help to keep you off the rocks on which he got scraped. You're not a bad guy yourself and he'll be glad to know you better. All he really knows about you are those "awful" things some chiseling prospect claimed you said about him. Try and make him like you.

This terrible competitor of yours may even prove to you what a whirlwind you will reap from overpromising on performance and underselling against cost. You are in this business now so it means that we all have to live in the same house from now on. Do your part to make the living as pleasant as possible. Co-operation is the Life of Trade.

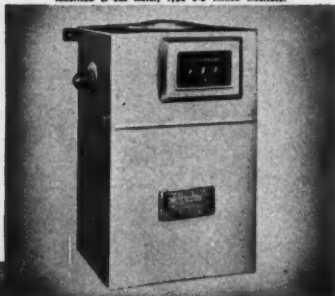
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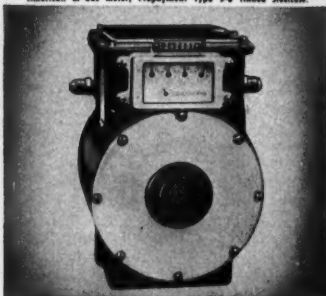
American LP-Gas Meter, Type 5-B Tinned Steelcase.



American LP-Gas Meter, Propellant Type 5-B Tinned Steelcase.



American LP-Gas Meter, Type 5-B Tinned Steelcase.



Metric-American LP-Gas Meter, Type 5-B Inconel.

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give valid weight to its recommendations on the correct application of LP-Gas Meters and Regulators. For 105 years, the manufacturers have successfully anticipated the needs of the Gas Industries.

\* NEW CATALOG LPG-4 gives valuable data on LP-Gas metering with instruments scientifically suited to the purpose. If you have not received your copy, please write.

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# MAINLY BEYOND THE MAINS

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## OBLIGATION AND OPPORTUNITY

It seems a little hard sometimes to stick in the shop and look after customers when the big parade is marching down the street, but we still subscribe to the old fashioned theory that business as usual cannot safely be viewed with contempt, no matter how big our national defense effort may be, or to what lengths it may take us.

None of us has the sales agency for guns and planes and tanks, and none of us has the facilities for building even the smallest of the parts that go into them. But that does not mean the LP-Gas industry is not to participate in both the obligations and the opportunities that the defense program creates.

To a nation that has suffered for over 11 years from the paralyzing economic effect of a chronic deficiency in consumer purchasing power, the first effect of armament spending has been a terrific shot in the arm of buying. This has been felt throughout the entire gas appliance field, with the reported sales of gas ranges, for instance, up 25.2% for the first two months of 1941 as compared to 1940. And even more important to our own industry is the fact that for the same two months the sales of LP-Gas ranges have increased 51% over last year.

Individual stove manufacturers with whom we have talked have claimed even higher percentages of gain, with factories from six weeks to three months behind in their orders. As is always the case when the public has real money to spend, the call is for quality merchandise. In this connection the figures just compiled by the A.G.A.E.M. show that for the first two months of the year the sales of

*More Than 4000 Copies This Issue*

CP ranges have increased 74.6% over January and February, 1940.

There has been some apprehension expressed regarding the supplies of raw materials, but in the main this has been worrying borrowed from the future. To date there have been very few instances of serious shortage of stock, and the lag in deliveries has been occasioned by the fact that existing plant capacities are simply not geared up to the major boom that is already under way.

Priorities are more talked about than exercised. And it must not be overlooked that among the major objectives of the National Defense Advisory Commission set up by the Government is not only the smooth and accelerated flow of defense materials but the parallel development of all consumer goods industries as well. Addressing the first meeting of the Commission, the President said, "Under modern conditions effective defense must be total defense—and total defense comprises not only the military and naval sectors, but the industrial, the agricultural, and the standard of living sectors as well . . . and the American standard of living, that primary weapon of our defense, must not be lowered through our failure to do the job which total defense implies."

For the LP-Gas dealer, the soundest course to follow is to buy normally, anticipating future needs but resisting the temptation to speculate on increased prices, and above all to get out and sell and keep on selling. New installations and new appliances, particularly those of the better quality, should be pushed more aggressively than ever before. Take all the orders you can get and make deliveries when you are able, but guard against making promises that cannot be fulfilled.

LP-Gas will make its spectacular contribution to national defense in the factories and the shops, in cantonments and in emergency housing projects. But its fundamental and most lasting role will be that of the fuel that adds so materially to the standard of living of increasing hundreds of thousands of Americans whose ultimate welfare is the total objective of total defense.

# Bottled Gas Marketing

## 1. When Can A Dealer Afford To Make Free Installations?

By C. C. TURNER  
Portland, Maine

**T**HIS article is for the benefit of those dealers who purchase gas regulating equipment and cylinders, then make free installation for their customers without a deposit or service charge. Is the practice a sound one? When is it justified?

There are unquestionably times when a free installation of equipment is justified, but there are economic laws which should govern the practice.

What does it cost us to do business with a particular customer? Our expenses may be divided into two general classifications—those which are fixed, and those which are variable. In relation to the individual customer we may divide these cost items as follows:

### Fixed Costs

1. Depreciation, maintenance and repair of regulating equipment.
2. Depreciation, maintenance and repair of cylinder equipment.
3. Interest on investment.

### Variable Costs

1. Overhead.
2. Delivery expense.
3. Percentage of fuel cost in relation to selling price.

Our variable costs differ in relation to our location, our method of operation, and our business ac-

men; therefore, any generalization of these expenses in relation to the entire industry is impossible. These three factors also affect our fixed costs to a certain degree, but the price of regulating equipment and cylinders exerts a greater influence. While these vary, it is not enough to throw us off any amount in the approximation of these costs.

Our industry is too young for us to yet state definitely the life of a regulator, an equipment housing, or a cylinder. We do know that the life of these pieces of equipment is well in excess of 10 years, but conservative business

● This is the first of a series of three articles by C. C. Turner in which the bottled gas business is treated from the angle of equipment investment rather than from the usual merchandising viewpoint. The other two, covering the subjects of "The Effect of Installation Charges on Retail Bottled Gas Prices" and "Dispensing and Pricing Bottled Gas," will appear successively in the June and July issues of BUTANE-PROPANE News. As the articles complement one another, it is suggested by the author that the reader have all of them in hand before applying to his business the principles set out in any one.—Editor.

**TABLE NO. 1. FIXED COST OF EACH EQUIPMENT  
INSTALLATION PER YEAR**

<i>(Exclusive of labor and incidental costs.)</i>					
<i>Type of equipment installed per listing above.</i>					
<i>Classification</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Regulating equipment and housing .....	\$ 6.75	\$ 6.75	\$ 9.50	\$14.00	\$17.00
Meter cost .....	...	8.90	...	...	...
Cylinder cost .....	16.00	16.00	30.00	30.00	30.00
Total investment .....	22.75	31.65	39.50	44.00	47.00
6% interest on investment ....	1.365	1.905	2.37	2.64	2.82
10% depreciation .....	2.275	3.165	3.95	4.40	4.70
Experience cost, maintenance and repairs .....	.435	.835	.81	.92	.97
Fixed cost of equipment, per year .....	4.075	5.905	7.13	7.96	8.49

practice requires us to depreciate this equipment over a 10-year period. If its life is greater, or it does not become worthless because of obsolescence we are so much the better off because of our conservatism. Before we figure how this works out we must define some types of equipment and establish some reasonable costs. The reader should bear in mind that the prices taken are only approximate and will vary according to the equipment used and the purchaser's buying power.

#### **Classifications of Bottled Gas Installations**

1. *Simple Single Cylinder Installations:* Such installations consist of a cylinder, a simple regulator, a single pigtail, and a suitable housing. This equipment, exclusive of the cylinder, may be purchased for approximately \$6.75.

2. *Single Cylinder Meter Installations:* These installations are practically the same as "Simple Single Cylinder Installations" with

the exception that a meter is added at an approximate cost of \$8.90.

3. *Two Cylinder Manual Domestic Installations:* These assemblies consist of two cylinders, a regulator, two pigtails and a housing. Cost of such equipment with the exception of cylinders will run in the vicinity of \$9.50.

4. *Two Cylinder Automatic Domestic Installations:* The general assembly is the same as in the case of "Two Cylinder Manual Domestic Installations" with the exception that the regulator is of the automatic throw-over type. Satisfactory assemblies of this type, exclusive of cylinders, may be purchased for approximately \$14.

5. *Two Cylinder Automatic Commercial Installations:* These differ from "Two Cylinder Automatic Domestic Installations" in the size of the regulator. A fair average price for these assemblies, exclusive of cylinders, is \$17.

6. *Multiple Cylinder Automatic Commercial Installations:* The cost of these installations is the same

as "Two Cylinder Automatic Commercial Installations," plus the cost of manifolding and additional housings. It is difficult to arrive at definite cost for such assemblies due to the varying methods of manifolding and types of housings. The extra cost should run somewhere in the vicinity of \$2.80 per additional cylinder, exclusive of cylinder investment.

**7. Special Industrial Installations:** Because of variance in the type and size of equipment involved, each installation of this type will require special figuring.

In all of the above we have avoided the matter of cylinder costs. The present rising market will have some effect upon this figure, but an average price of \$12 should be a fair one. Cylinder requirements are figured at one and one-quarter cylinders for each cylinder actually installed.

With these general figures we can arrive at an approximation of our fixed costs. Table No. 1 has been compiled merely as a suggestion, and each dealer should substitute his known costs in making application of this method of customer cost figuring to his own business.

**TABLE NO. 2. FIXED AND VARIABLE COST OF EQUIPMENT PER YEAR**

<i>Type of equipment installed as shown in Table No. 1</i>					
1	2	3	4	5	
\$8.15	\$11.81	\$14.26	\$16.92	\$16.98	

To these figures must be added depreciation amounts for pipe and

fittings, and 10% of the labor and incidental installation expense. We must also add our delivery and overhead expense in order to arrive at the yearly cost of each equipment on a break-even basis, which has been done in Table No. 2. A "rule of thumb" method is to double the "Fixed Cost of Equipment Per Year" in order to include these items.

**What Should Be the Customer's Yearly Gas Bill on a Break-Even Basis?**

Let us assume a gross profit of 25%. In the above figures we have taken care of all expenses in connection with each customer up to a break-even point. Taking this as a basis of computation the yearly fuel bill should be four times the "Fixed and Variable Cost of Equipment Per Year," which Table No. 3 reveals.

**TABLE NO. 3. CUSTOMER'S YEARLY FUEL BILL—BREAK-EVEN BASIS**

<i>Type of equipment installed per previous listing in Table No. 1</i>					
1	2	3	4	5	
\$32.60	\$47.24	\$57.04	\$63.68	\$67.92	

Naturally, when seeing these figures the dealer wonders how many deliveries he must make in a year in order to break even. Table No. 4 will be of interest in establishing in his mind just what giving away equipment and installations means.

Here is much food for thought—and what is the answer? Let us take a typical customer who is us-

**TABLE NO. 4. BREAK-EVEN NUMBER OF CYLINDER DELIVERIES AT VARIOUS PRICES PER CYLINDER AND FOR VARIOUS TYPES OF EQUIPMENT**

Price of gas per cylinder	Type of equipment installed per previous listing, Table No. 1				
	1	2*	3	4	5
\$ 5.00	\$6.52	\$9.44	\$11.40	\$12.73	\$13.58
5.50	5.92	8.58	10.37	11.57	12.34
6.00	5.43	7.87	9.50	10.61	11.32
6.50	5.01	7.26	8.77	9.79	10.44
7.00	4.65	6.74	8.14	9.09	9.70
7.50	4.34	6.29	7.60	8.49	9.05
8.00	4.07	5.90	7.14	7.96	8.49
8.50	3.83	5.55	6.71	7.49	7.99
9.00	3.62	5.24	6.33	7.07	7.54
9.50	3.43	4.97	6.00	6.70	7.16
10.00	3.26	4.72	5.70	6.36	6.79
10.50	3.10	4.49	5.43	6.06	6.46
11.00	2.96	4.29	5.18	5.78	6.17
11.50	2.83	4.10	4.96	5.53	5.90
12.00	2.7	3.93	4.75	5.30	5.66

ing gas for cooking purposes only, and whose consumption is but 30 pounds per month. This amounts to 360 pounds per year, or 3.6 one hundred-pound cylinders. Such a customer would definitely not be a profitable one with either Type 2 or Type 3 equipment. Let us increase the customer's consumption to 80 pounds per month or 9.6 cylinders per year. The customer would then become profitable at a much lower price per cylinder with either type of equipment.

So here is the answer. Unprofitable customers become profitable ones by the installation of additional appliances. Sell water heaters, sell space heaters, sell gas refrigerators. Nine times out of 10 these sub-marginal accounts may

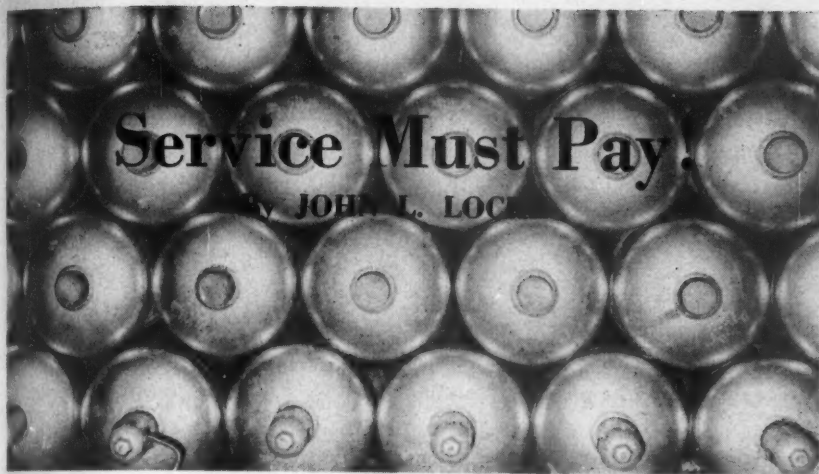
be turned into profitable ones by simply selling them these other services.

What about the small user who refuses to buy additional appliances? We have five alternatives. We can raise the gas price to a point where they are profitable; we can collect an installation fee; we can persuade them to install something on the type of "cash-and-carry" service in which they assume the entire investment load; we can turn them over to our competitors; or, we can live along with them, hoping that the seed which we have attempted to sow may some day bear fruit in the way of more appliances, and greater gas consumption.

(Part 2, entitled, "The Effect of Installation Charges on Retail Bottled Gas Prices," will appear in the June issue of BUTANE-PROPANE News.

\* Installations of this type usually require a monthly trip for meter reading. If this is the case, the figures given for this type of equipment are incorrect, and those given in column No. 4 should be used.





# Service Must Pay.

by JOHN L. LOCKE

**T**HE liquefied petroleum gas business is not near as new as many may think. What has happened is that it crawled out of the incubator in 1925, where it had just been breathing for many years, and over night became a robust adult.

In 1906, the Blaugas Co. of America was organized. This company was a holding corporation which parceled out the United States and disposed of rights for manufacturing and selling Blaugas for such portions as it could to various subsidiary companies it caused to be formed. Under this plan, the following companies were incorporated: Atlantic Blaugas Co., New York City; Eastern Blaugas Co., Boston; Chesapeake Blaugas Co., Baltimore; Peninsular Blaugas Co., Detroit; Southern Blaugas Co., Denver; Nebraska Blaugas Co., Omaha; and Northwestern Blaugas Co., Saint Paul.

The Northwestern Blaugas Co.

- More than three decades of experience has convinced the Northwestern Blaugas Co., of Saint Paul, that adequate charges for service are essential to success. John L. Locke, president of the company, tells why this is so in the accompanying article, names other contributing factors, and recounts some early history, including the beginning of the industry in America in 1906.—Editor.

came into being in 1909. Many of the leading citizens of Saint Paul got together with high hopes that they were starting a second American Telephone and Telegraph Co. According to the figures which were checked and re-checked by bankers, lawyers, and engineers, the net profits each year on an investment in fixed assets of \$185,000 were going to be \$254,890. That was 32 years ago and if the figures had not been slightly exaggerated, the profits for all these years would



At left is John L. Locke, president, Northwestern Blaugas Gas Co., St. Paul, Minn. At right, G. F. Bursinger, sales manager of the company, caught at favorite pastime, "talking," and W. A. Ovrom, credit manager.

have been \$8,156,480. That is quite a sizable return on only \$185,000. The figures looked fine on paper and all of the organizers were wondering what to do with all of the money they were going to make. After the plant at Saint Paul was put into operation, and it was found that the stuff would have to be sold, since no one would come in and take it away from them, and that more and more cylinders would have to be bought every time a customer was put on the books, the Founding Fathers were snapped out of their pipe-dream in a hurry.

#### One Company Did Everything

In those days, the company not only had the burden of selling and distributing the gas, but also it had to manufacture it. A 32-36 A.P.I. gravity gas oil was cracked under a slight vacuum in retorts. The gases were then separated and the portion which was to be liquefied was compressed into cylinders. These cylinders were manufactured according to ICC specifications.

Gas was shipped out under a pressure of about 1200 lbs., and cylinders of two sizes were used; one with a tare weight of 95 lbs. with a capacity of 20 lbs. of Blaugas, and the other with a tare weight of 115 lbs. with a capacity of 30 lbs. The old-style Blaugas systems consisted of a cabinet—full length—with corrugated door, housing a 9-in. Chaplin-Fulton regulator, with two cylinder connections and a relief valve set at 100 lbs., and an expansion tank 36 in. x 72 in. which alone weighed 645 lbs., and the necessary copper tubing. The purpose of the expansion tank was to serve as a reservoir or gas holder for the customers. The cylinder valve would be opened up, and the pressure on the expansion tank raised to about 75 lbs. The gas from the tank would be used until the pressure dropped, then the customer would go out and give the tank another charge. The early customers were long-suffering individuals. They had to handle from 95 to 115 lbs. of steel in order to



At left, Edward Ode, cashier, and Claire Foster, assistant cashier. Their company association has been for 19 years and 10 years respectively. Right, Isaiah Miller, filling cylinders, a job he has held for 30 years.

use 20 to 30 lbs. of Blaugas, and they would have to hitch up the old horse and go over to the freight station to return empties and pick up full cylinders.

Blaugas first came on the market for farm and suburban home lighting. The old-style Welsbach fixtures and mantles were used, and it was thought that a whale of a business could be worked up on lighting alone. Lighting fixtures did not take much gas, and if cooking had not come into the picture, the company surely could not have made the grade. The old records show that the company was very hopeful that Blaugas would replace Pintsch Gas for lighting railway cars. A number of tests were made for many railroads but nothing much ever came of lighting the cars with Blaugas.

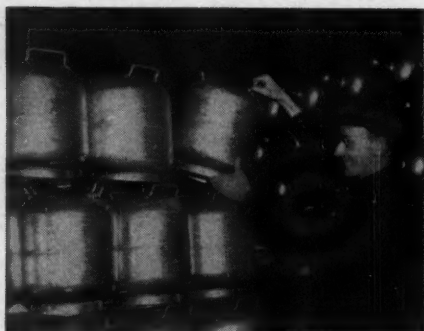
An engineer was hired to spread the story of welding and cutting. Many outfits were sold to blacksmiths and it looked like quite a business could be worked up, Blaugas was shipped all over the

country from the Atlantic to the Pacific and from Edmonton, Canada, to New Mexico for lighting, welding and cutting, cooking, water heating and for laboratory burners.

#### Salesmen Thought It a "Natural"

The original sales force was composed of men formerly selling acetylene generators and gasoline gas machines. When Blaugas outfits started to cut in on the market they flocked in by droves to handle the wonderful new invention. There is in our organization an associate who became connected with the company about 29 years ago. He can recall starting off on his bicycle to sell Blaugas in the nearby territory, and when he went 30 or 40 miles out of town by train, he usually hired a farmer to take him around to his different prospects with a horse and buggy.

The salesmen were given a concentrated course of instruction for a week or two, during which they were made familiar with the line of lighting fixtures and other appli-



Northwestern Blaugas superintendent, P. M. Vang, banking up cash-and-carry cylinders. At right, Helen Lepisto, who is a newcomer to the organization, having been with the company for only five years.

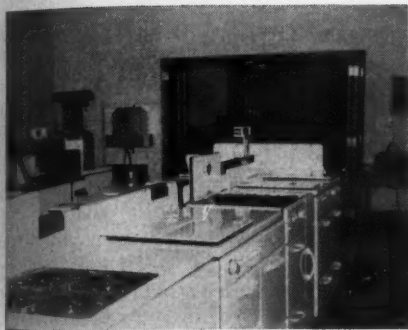
ances, and with proper installation and operation of the Blaugas system. They were then turned loose to call on the doctors and bankers and schools of the small communities. With an outfit selling at around \$200, their market, of course, was limited. A well-trained sales organization is a positive necessity today. The trick is not selling—it is selling *right*. If you don't want more merchandise coming in the back door than goes out the front, choose your men as you would choose a bride.

#### Always Believed in Advertising

During the first years, it was found necessary to spend a sizable sum for advertising. Local newspapers and farm publications were used, but the bulk of the advertising appropriation was spent on direct-mail pieces. The company still believes that money spent for the right kind of advertising will come back many times. While no sales can be made by mail, many leads are obtained which can be ripened

into orders by the use of aggressive personal selling.

Also, during this early period it became obvious that a service department was just as important for the maintenance of customers as the sales department was for obtaining the customers in the first place. Liquefied petroleum gas distributors are just like the public utilities as far as service is concerned; in fact, service is all we have to sell. They must be ready at any time of the day—or night, for that matter—to take care of some customer who is, or thinks he is, in trouble. The costs for giving the proper kind of service are high, and if these are neglected in drawing up a retail selling schedule, it will be just too bad. It makes no difference if you handle butane or propane, above ground or buried, retail or wholesale, you should set up a good allowance for service. If it is not an oven control, it will be a regulator, and if it is not a regulator, it will be just a desire on the part of the customer to have



**A view of the showroom of the Northwestern Blaugas Co. A large stock of appliances are on display here, most of which are not visible in this picture. At right a sample installation also on view in this room.**

someone to talk to. The liquefied petroleum gas distributor who has not organized a good and, consequently, expensive service department, or who has decided he can distribute retail at rates public utilities in congested districts would shun, is riding for a fall. The business may require less investment per customer in equipment than the gas business of public utilities, but don't forget that service charges per customer are larger because customers are more scattered, and don't forget that it is hard to beat a pipe line for low transportation cost. Your bread and butter is your gas business. Your gas prices must include plenty for servicing if you don't want to have more than your share of dissatisfied customers on your hands.

#### **Service Costs Are Often Deceptive**

Many times a distributor will state that it does not cost him much to deliver gas because he happened to be going out that way anyhow, but such is not the case. His truck

is going to wear out sometime, and has to be replaced, and his time, or the time of his employe, is valuable. Some dealers in small communities have an idea they can make money delivering 100-lb. cylinders 30 miles from their places of business for a \$2 commission. If they could operate their trucks for only 4 cents per mile, and their time was worth nothing, they would be out of pocket 40 cents. Carefully kept records would demonstrate that fact in a hurry. The same applies to operations of a larger scale.

#### **One Distributor Gets Long Price**

One old-time distributor we know of, and, incidentally, a very smart operator, is getting about 13 cents per lb., or 58 cents per gal. for propane used in stoves, alone. For multiple-appliance users, his rate schedule is reduced somewhat. His customers are all boosters and feel they get value received. They are started out right with only the finest appliances that money can buy,



and they are kept in the right frame of mind by getting service no one could better.

The Northwestern Blaugas Co. started out with a banker and some hard-headed business men on the board of directors who insisted on knowing just where the company stood at all times. A certified public accountant was called in to open up a set of books and to start off on the right foot by putting into practice the best methods of cost accounting. In these days of social security, and the rest of our alphabetical troubles, it is important that a good, but not necessarily elaborate, system of accounting be used.

#### **No End to Costs**

Any distributor must make plenty of allowances for such items as depreciation, repairs and renewals, workmen's compensation, and products liability insurance, servicing, installation, and delivery expense. These items are in addition to the usual ones of salaries and wages, telephone and telegraph, postage, printing and stationery, advertising, collection expense, real estate and personal property taxes, income taxes, social security and old age benefit taxes, and miscellaneous general expense.

The slow but sure way seems to be the best way to build up liquefied petroleum gas distribution. We all get the idea once in a while that it would be nice to steal the other fellow's customers and get all his business, but we should remember that two can play at that game. Propane is propane, and butane is butane. No one has a corner on those materials. What one can do

the other can do, and no one has an edge on the other for long.

Electric competition is the only competition liquefied petroleum gas ever has had or ever will have. If we do not recognize that fact and realize that our competitor is a well-organized public utility distributing exclusively in a territory, whose rates are established by governmental authority, and whose profits, in a sense, are guaranteed, we will be a band of gypsies arguing, scrapping and thinking we are having a good time, but getting nowhere. True economy is not a matter of price: it is a matter of value received. Those distributors who do an honest job selling the best merchandise that money can buy, and who are able and willing to give the finest kind of service to their customers, are going to be on deck, and more than a couple of jumps ahead of the sheriff, when those who think of nothing but price are going to be gone but not forgotten.

#### **A Parable**

We want to conclude with a story which some have heard but which all of us might well think of once in a while: The Story of the Prophet and the Asses.

"At the beginning of things, when the World was young, the donkey was esteemed by all the tribes of men as the wisest of animals. The good Sheik El-Sta-Shun-Air owned a great herd of these sagacious beasts, which was the pride and joy of his life.

"Other Sheiks came from all around to listen and marvel at the wisdom of the herd. At such a time came even the Prophet himself—most learned and wise of all the sons of the East. With much glowing pride El-



Sta-Shun-Air led him out to the herd and said:

"Behold, O Prophet, the wise and talented asses. Converse with them, test them, and see if they are not verily wiser than forty trees full of owls."

"Then the Prophet addressed the asses. 'Let us test your wisdom,' said he. 'Answer me this question: What should an ass require for a three days' journey?'"

"And they counselled among themselves and then made reply: 'For a three days' journey, O Prophet, any ass should require six bundles of hay and three bags of dates.'"

"Very good," quoth the Prophet, "That soundeth like a fair and proper price." Whereupon El-Sta-Shun-Air broke into loud chuckles and said: 'Did I not say they are passing wise?'"

"The Prophet answered, 'Wait,' and he again addressed the asses: 'I have to make a three days' journey, but I will not give you six bundles of hay and three bags of dates for making it. Let him who will go for less stand forth.'"

"And behold, they all stood forth and began to talk at once. One would go for six bundles of hay and one bag of dates, until finally one especially long-eared ass agreed to go for one bundle of hay."

"Then spoke the Prophet: 'Fool,' quoth he, 'You can not even live for three days on one bundle of hay, much less profit from the journey.'"

"True," replied the long-eared one, 'but I wanted the order.'"

"And from that far-off day to this, asses have been known as fools, and price cutters as asses."

### **Butane-Propane News Will Publish LP-Gas Manual**

How well versed are you in the fundamentals of the liquefied petroleum gas industry? Do you know the nature of the fuel, how to apply it, and the best methods of rendering service?

In order to afford those new in the business an opportunity to educate themselves in the rudiments of the industry, and to give those of wider experience an opportunity to brush up on important details encountered daily, BUTANE-PROPANE News plans to publish a series of articles in the form of an instruction course in language that all can understand. It will be called, "The LP-Gas Manual." This manual will cover the characteristics of the gases; their uses; utilization equipment; service, and many other topics. The series will begin in the June issue, continuing monthly until completed.

Prepared by C. C. Turner, of Portland, Maine, a widely known authority, it will be impartially written, and technically edited to ensure accuracy.

This is an opportunity for every dealer, sales and service man to fortify himself with an invaluable guide and reference. Many concerns will want to place orders for additional subscriptions for key men in their organizations before the series starts, and interested readers should carefully preserve and file all copies during the period the course is being published.—Editor.

# Newport News Shipbuilders Use Propane for 1200 Dwellings

**T**HE Rulane Gas Co., of Charlotte, N. C., was recently awarded the contract to supply the fuel requirements of 1200 dwelling units now being constructed at Newport News, Va., for the use of civilian employees of the Newport News Shipbuilding and Drydock Corp. These units, being constructed by the United States Navy Department, are to utilize propane gas exclusively for all cooking and water heating purposes.

Originally scheduled to be completed by March, it is now expected that the houses will be finished by June 1. Gas ranges and automatic water heaters will be furnished in each of the units, which are to be rented by the Government to the shipyard workers.

## Undiluted Propane Will Be Served

According to Gilder S. Horn, vice president of Rulane Gas Co., the fuel contract was awarded by the the Public Works Department of Naval Operating Base, Norfolk, Va., through competitive bids called for by the Base supply officer. The Rulane Gas Co. will deliver 2550 B.t.u. undiluted propane vapor through one master meter into the Government-owned distribution system. The company is erecting a bulk plant across the highway from this project for their own use in cylinder and tank truck

filling. This plant, however, was to be located in this general area whether or not the Government contract was secured. The company merely meters the vapors drawn off from the top of the tank into the project distribution lines. This plant installation is now being rushed to completion, and gas will be available prior to the need of the housing project.

## A Master Meter Is Installed

The Rulane Co. has established a master meter, and all collections will be from the housing project management for the number of therms drawn through this meter. Various proposals were considered, including all possibilities of ownership of individual meters, and collections from the project or from individuals. It is now assumed that a flat amount will be counted into the rent for the gas service, because as yet no individual meters have been installed. The Rulane company will also service all appliances and equipment used in the project. Total consumption is estimated at 17 to 20 therms per month per unit or 20,000 to 24,000 therms per month, or 250,000 therms per year.

The Rulane organization does a varied type of business. The storage and methods of delivery by which the company serves its cus-

tomers include self-service 20-lb. cylinder; replaceable 100-lb. cylinders; replaceable 100-lb. cylinders through individual meters; tank truck service to various-sized batteries of aboveground, leased containers of 100, 150, 300 and 425 lbs., with metered gas, and also to 2000-gal. sizes; underground systems of all sizes bought by the user with the fuel paid for by the gallon in advance; and tank car bulk installations with fuel shipped from Phillips Petroleum Co.

The housing development is expected to use two and one-half car lots of fuel per month. In addition to this load the company was already servicing the Newport News Shipbuilding and Drydock Corp. with two cars per week. The Navy Yard there has been receiving two cars per week, but this amount is now increasing by a demand for an additional car each five hours. Other customers serviced for years by the Rulane Gas Corp. use up to a car per week.

## Drop Your Old Ranges on Berlin!

EARLY in March the Southwest Stove & Supply Co., Dallas, Texas, interested in ridding itself of an accumulation of old cook stoves, long a space filler in its warehouse, and at the same time seeing an opportunity to aid the cause of Great Britain in her need for scrap iron, decided to donate to the national scrap iron drive more than 70 antiquated gas and oil ranges which in the past have been turned in on new equipment.

In order to capitalize upon the advertising that would accrue if the public's interest could be attracted, C. M. Russey, manager of Southwest Stove & Supply Co., had these 70 old ranges piled upon the sidewalk in front of the company's office at 2018 Commerce St. Upon them were placed specially prepared, colorful placards which bore such lines as, "Drop This One on



C. M. Russey of the Southwest Stove & Supply Co. in front of a portion of the old stoves that he recently donated to Great Britain.

Rome"; "For Cooking up the Par-boiled Nazis," and other messages deriding Mussolini and Hitler and totalitarianism. There were, in all, approximately seven tons of scrap iron in the old equipment.

"I felt that this move might inspire other dealers, furniture men and those whose warehouses have become cluttered up with such equipment, to do likewise," declared Mr. Russey in commenting

from this plan to help Britain. Earlier the Dallas Gas Co., part of the Lone Star Gas System, organized what it termed an "Old Stove Round-Up" in which all LP-Gas and natural gas companies and range dealers in the Dallas area received invitations to participate, and which sought to assemble as many old ranges as possible to be turned over to the British cause.

To spur interest in the movement



Shown here are seven tons of old stoves which will be converted into "bullets for Britain." The 70 stoves were donated to the Dallas-Scrap-Iron-for-Britain Committee by C. M. Russey, of the Southwest Stove & Supply Co. Dallas motorists and pedestrians stopped and applauded.

upon his "stunt." "It offered a good chance to clean out old models that possessed virtually no value and which have presented an increasing problem of disposition, and to gain some good publicity in the doing."

Not only did Mr. Russey and his associates, E. R. Russey, W. E. Russey and Mrs. L. Russey profit

the Dallas Gas Co. has offered to give 10 new gas ranges in April and May to those who turn in on the purchase of new stoves the five oldest ranges each month.

Word received from other sections of the country indicates many dealers may use a similar plan to free themselves of old ranges.



Mexican army officer en route to Washington, D. C., stops at San Antonio, Texas, to refuel his army service plane with butane.

## *Mexican Airplane Flies on Butane*

FIRST Lieutenant Radames Gaxiola, who belongs to the air force of the Republic of Mexico, recently made a flight to Washington, D.C., from Mexico City, using butane gas for fuel all the way.

His first stop was in San Antonio, Texas, where he was refueled by the Edwards Gas Appliance Co., according to R. L. Edwards. While there, he also had installed a specially fabricated tank made by the Southern Steel Co. This tank has a capacity of 80 gallons, which will permit a flight of approximately 400 miles without refueling, depending upon wind conditions. The plane consumes 20 gallons per hour at its normal cruising speed of 140 miles per hour.

The gas is vaporized by heat from the exhaust from the engine,

passed through a 2-in. pipe running through the lower part of the fuel tank. The amount of heat from the exhaust is controlled entirely by the pressure on the tank. In addition, there is a manual control to use in the event the exhaust control fails. This is determined by the pressure gage on the instrument board.

Arrangements were made by Mr. Edwards for Lieut. Gaxiola to obtain additional fuel at Shreveport, La.; Jackson, Miss.; Birmingham, Ala.; Atlanta, Ga.; Columbia, S. C.; Raleigh, N. C.; Washington, D. C.

Mr. Edwards states he understands that the Republic of Mexico is seriously considering using butane extensively in Government planes. A new type of carburetor, apparently designed for this special application, is being tried out.



# Northwest Arkansas Broiler Show

## How Two Distributors Are Profiting From Expansion of Chicken-Brooding With Butane

**T**HE results of the Northwest Arkansas Live Broiler show, which was held at Rogers, Ark.,

By LOVINE GREER



LOVINE GREER



L. T. GREER

March 6-8, justified the faith that L. T. Greer, manager of the Butane Gas Corp., Fayetteville, Ark., had in the value of butane in the broiler industry.

Three years ago there were only two butane gas systems in northwest Arkansas, which is the center of one of the largest broiler-growing sections in the entire country. Today the broiler industry in three counties has reached the \$5,000,000 mark and is still growing.

Mr. Greer came into this territory in the fall of 1938 to sell the idea of butane service to the local residents, and a year ago, at a similar broiler show, the Butane Gas Corp. held the first display showing any kind of brooder equip-

ment for butane gas. This created a lot of comment because there was need for a fuel that would insure safer and cheaper operation and one that would permit the grower to attain a quantity production basis. Mr. Greer felt that he had the answer to such a need in the use of butane gas, in spite of some early failures resulting from lack of proper equipment. The interest of different concerns specializing in gas brooding equipment was aroused, and with the help of factory engineers, cooperation of different users, and continued promotion of the idea, he succeeded in making a large number of installations. For this show just held, the Butane Gas Corp. had a display of chickens that was outstanding, and one of its users, Gene Pianalto, took seven prizes out of a possible eight in two groups of 13-weeks-old Barred Rock broilers. This was the greatest number of prizes taken by any group.

**RIGHT** — At top, the 18,000-gal. butane bulk storage plant, transport and service truck of L. T. Greer, Fayetteville, Ark. Bottom—Brooding chickens with butane in Arkansas has helped to develop a \$5,000,000 industry in three years.



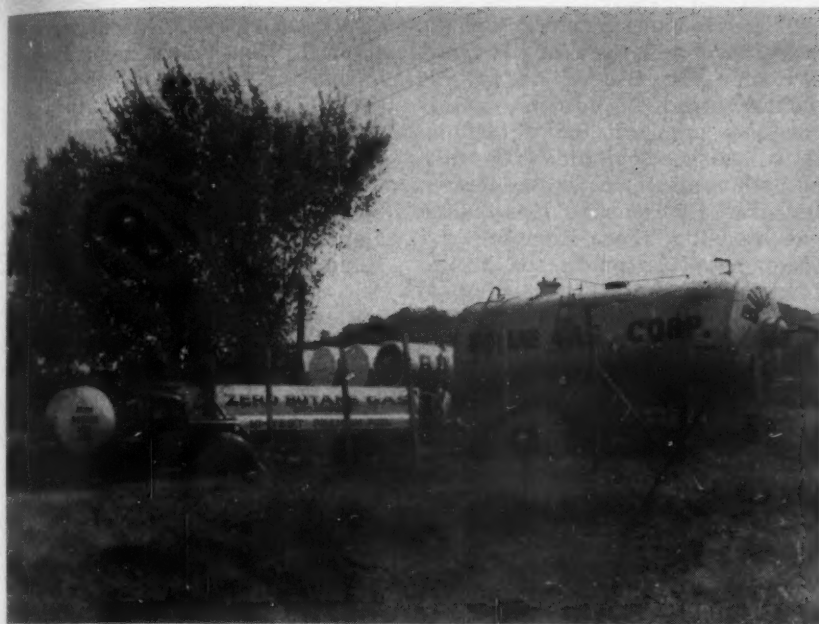
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Through experimenting, and in cooperation with some of the growers and feed dealers, as well as manufacturers of equipment, this company has now many installations, and has sold widely the idea of both semi-warm and cool room brooding. By means of this butane gas brooding, there has been virtually a revolution in the broiler industry. Cool room brooding is fast taking the day.

Butane brooded chickens bring one cent per pound more than those brooded with other fuels. Actual operations show that chicks can be brooded the full term with cool room brooding as low as one-half cent per bird and with semi-warm room brooding for one cent per bird. These figures are far less than records show for brooding with other fuels.

In the cool room brooder, Mr. Greer has found the A. R. Wood radiant gas brooder to be all that could be desired. Just after the broiler show closed, Mr. Greer and E. J. Albright, representing A. R. Wood Manufacturing Co., sold a large plant with 46-ft. Wood brooders, which will accommodate 20,000 broilers.

The Butane Gas Corp. at the present time has a large crew busy making installations for domestic purposes as well as for use in brooding chickens. The company's slogan is, "If it's done with heat we will do it better with butane."

So, beginning in a small way, with only an idea and a determination to sell that idea to the public, Mr. Greer, and his son, Philip, as chief installation man; L. A. Heckman, as salesman; and, later, Wal-

ter D. Hays, have contributed substantially to the chicken brooding business in northwestern Arkansas and to domestic users throughout the five counties in which they operate. The company is associated with B. T. Harris, of the Butane Gas Co., Inc., of Little Rock, and is distributor for the Southern Gas & Equipment Co., of Little Rock, Ark., and Birmingham, Ala.

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## ***Cold Air Brooding Proves Effective***

By VAN FINGER

National Butane Gas Co., Memphis, Tenn.

**A**T the Northwest Arkansas Broiler Show a butane gas brooder display was the center of attraction. The Steve Miller Gas Appliance Co., of Springdale, Ark., in order to put over at the show the idea of cold room brooding on butane gas, conceived the idea of brooding a number of baby chicks in cold room houses. In order to make this demonstration most effective, a special house was built without sides, or entirely open on all four sides. Three weeks prior to the broiler show, day-old baby chicks were placed in this house and the day before the show the house, with 500 chicks, was moved to a position directly in front of the National Guard armory in Rogers, where the show was held. This display, put on in connection with the inside display of the Cy Carney Appliance Co., of Rogers and Fayetteville, Ark., with whom the Steve

Miller Co. is allied, featured the National Thermo-Syphon Butane Gas System and the A. R. Wood radiant gas brooders.

The display and demonstration were very effective because people who attended would pass by the open air brooder house, observe the chicks, and then go on into the main exhibit hall where a group of salesmen from the Cy Carney Appliance Co. would meet them with another brooder display, and pictures and facts on fuel cost for brooding. This company made a survey in the area and found the average fuel cost to brood 500 chicks during the cold winter months runs about as follows:

Coal .....	\$12
Kerosene and distillate .....	14
Electricity .....	10
Butane gas, from .....	\$2 to 3

This tremendous saving is accomplished by the use of the cold room brooding system, the employ-

ment of efficient equipment, and the use of butane gas which provides a constant and uniform heat.

Because gas brooding, to attain its highest economy and efficiency must be done in open houses and the gas pipes are exposed sometimes to as much as 10° to 15° below zero temperatures, it is necessary that a system supply gas at all times under subnormal as well as normal conditions, and with a uniform B.t.u. content of gas, because fluctuating heat often results unsatisfactorily. A very good example of this occurred the first night of the show when the temperature dropped to 15° below freezing and a heavy snow storm set in, which continued throughout the second day of the show. The third day the sides of the brooder house were covered with long icicles and the water was frozen in the water troughs, but the chicks came through in fine shape.



In front of National Guard armory, Rogers, Ark., an open-air design of chicken brooding house prepared visitors for larger display within. Chickens moved in and out of warm area at will while the snow fell around them.

# LP-Gas Provides Luxuries For Mountain Ranch

By F. L. DUCLOS

**U**P the canyon, about five miles from Texas Creek, Colo., a new mountain home has just been erected on the Hoffman Ranch at a cost of \$40,000. This home reposes in a beautiful setting, 7000 feet above sea level, surrounded by stately mountains. It affords a very inviting retreat, with its spacious rooms beautifully decorated. The imposing structure possesses all conveniences found in any city home.

Although located 75 miles from any pipe line, gas is used for house heating, for the automatic water heater and for the kitchen range. Electricity is furnished by a 5 kw. diesel powered engine generator set located about a quarter of a mile away. This power unit operates continuously and supplies 110-volt alternating current for the house and surrounding building. It also supplies power for the automatic water system as well as for the compressor for the large refrigerator room. Indirect lighting is provided for the main rooms by means of fluorescent tubes.

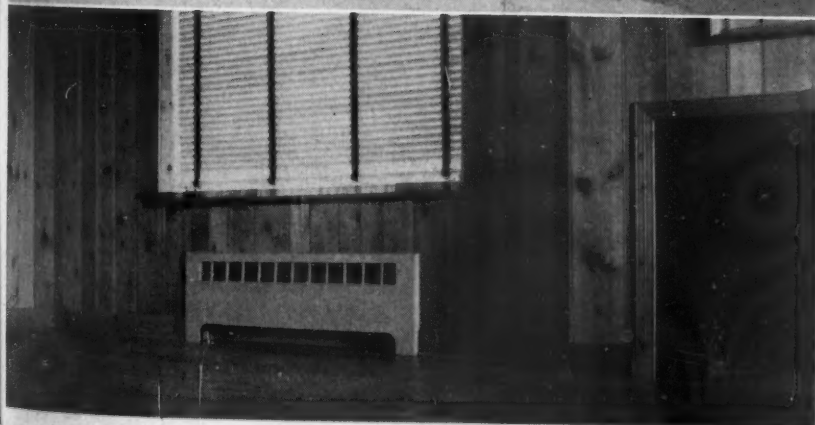
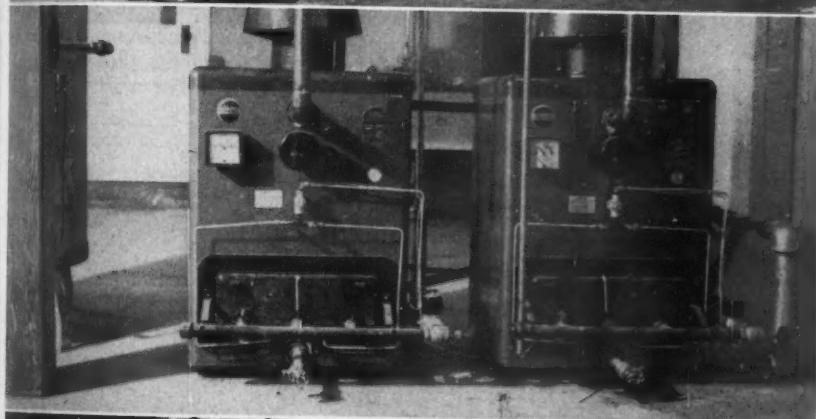
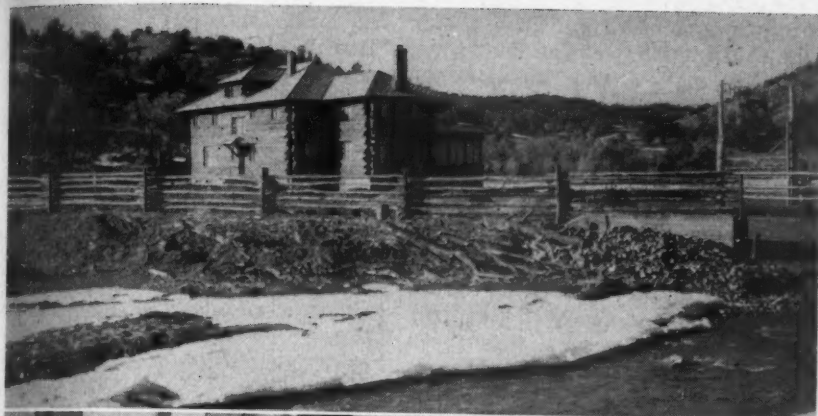
There are five exquisite bath rooms, each furnished with colored fixtures that harmonize with the tiled walls in pastel shades. Each bath room has a built-in shower fronted with plate glass doors. Hot water is supplied to these fixtures, as well as to the automatic dish washer, by a Crane automatic

water heater fired by butane gas.

The heating arrangement is very unique. The new balance-sustained heating system is employed. Force-circulated warm water conveyed through small copper tubing provides the medium for the heat exchange. To give ideal comfort the system is so designed that as it becomes colder outside, the temperature of the water is increased automatically. The water temperature is controlled so that the heat input is balanced at all times to just equal the heat loss of the building. This gives a very close heat regulation.

The heat application is at the outside walls, below the windows, to blanket the cold influence with warmth. This is accomplished by heat dissipators recessed in the walls and covered with attractive panels. Warm water provides a heat-holding medium so that the heat input is continuous regardless

**RIGHT**—At top, the new Hoffman mountain home, heated and served with butane gas. In the center are shown the twin heating boilers which supply the heat. Note their compact size. The edge of the automatic butane gas fired water heater is shown at the left. The bottom picture shows the heat dissipator recessed in the wall below the window. The fronting panel harmonizes nicely with the surroundings.



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of intermittent firing. This avoids the cold influence at the floor zone.

Two small Crane Basmor gas fired boilers, designed specifically for butane gas, supply the heat. Each boiler has a 100% complete shut-off actuated by the thermocouple electro principle. One of these units supplies heat to the first floor while the other supplies heat to the second floor—each being under separate thermostatic control.

The butane gas service has been ideal for all the domestic uses to which it is applied. This gas service is supplied from a 1100-gal. underground system. Underground water from the nearby Texas Creek is used to insure vaporization under

all circumstances. The system was furnished and is being served by the Union Gas & Equipment Corp. of Pueblo, Colorado. The plumbing and heating material was supplied by Crane-O'Fallon Co., of Pueblo.

At the beginning there was some question as to what fuel should be used—oil or butane gas. Naturally, the oil people were extremely anxious to have this customer. Arguments were advanced that possibly this would be too large a house to heat economically with butane gas, considering its size and the weather conditions at that location. The system is, however, proving to be very economical and complete satisfaction has resulted.



Members of the Philgas Division, Phillips Petroleum Co., and Servel, Inc., representatives at the Servel Electrolux factory in Evansville, Ind., where they recently studied the latest developments in gas refrigeration. These men were members of a selected group chosen for their ability and interest in their work.



## State Regulations Are

# INDUSTRY SAFEGUARDS

SINCE 1936, the LP-Gas industry has grown by leaps and bounds so that today it ranks with the most pronounced developing and expanding industries. In Louisiana, to which part of the industry I am most familiar, the expansion has developed from a few hundred systems in use at end of 1936 to over 10,000 underground tanks, ranging from 65 to 1000 gallons, water capacity, as well as many aboveground storage tanks and cylinders. Its utility is being rapidly applied as motor fuel for tractors, construction machinery, stationary engines, oil well drilling rigs and other uses. Great opportunity is afforded for expansion—to provide this gas service to the people regardless of where they live.

This relatively new industry, which delivers a comparatively small amount of liquid into a tank located on the home premises, whereby tenant can open a valve and be afforded all the advantages of natural gas for cooking requirements, heating the home, refrigeration and air conditioning, has no serious competitor. Fuel for pro-



W. P. THOMAS

● When W. P. Thomas, director of the gas division of the Louisiana Public Service Commission, appeared before the December dealer convention of the National Butane Gas Co., in Memphis, Tenn., to read a paper entitled, "The Value of State Regulations to the Liquefied Petroleum Gas Industry," he stressed the importance of cooperation and mutual understanding between law enforcement bodies and dealers. "Don't think of regulations only in the sense of police power and mandatory submission to an order, whether right or wrong," he said. Instead, he urged all LP-Gas men to help create good laws by combined influence and to obey them for the widespread welfare of the whole industry and for individual success. An abstract of Mr. Thomas' article appears herewith.—Editor.

viding heat and energy is as necessary to every living being, as the air we breathe. Natural gas is not available to all the people of our nation, because it necessarily requires a pipe line system for the delivery of the gas to the points of utility. Butane gas does not attempt to compete with areas where natural gas is available, but it ranks in first place as a fuel to serve beyond the gas pipe line systems, as a complementary fuel rather than competitive with the natural gas.

Liquefied petroleum gas systems are easy to install and operate; the service costs are very reasonable and such service is considered more efficient than electricity

for heating purposes. The cost of heating with butane gas, when purchased at 10 cents per gallon, would be equivalent to the heating cost from natural gas purchased at \$1 per 1000 cubic feet or the same as electric energy at one-third of one cent per kw.hr. Of course you cannot even expect to purchase your electric current for a price much below 2 cents per kw.hr., so you can thereby compute your relative cost. Gas service further eliminates the drudgery of handling wood or coal and the present cost affords a favorable price parity. Therefore, the market demand exists; the gas service has been proven adequate to meet all the requirements of a necessity; it is reasonably economical for initial cost and operation, and a sufficient supply of both the fuel and equipment is waiting for distribution to the users. Louisiana, which is only surpassed by the States of Texas, California and Oklahoma in the production of natural gas, still has something over one million people, of its two and one-half million of population, who are using some fuel other than natural gas or liquefied petroleum gases for their heating needs. We, from Louisiana, think that we have a very promising potential market.

The rapid growth of this liquefied petroleum gas industry, whereby a fuel of characteristic properties is used which is a volatile and inflammable product exerting certain pressures that exist to a degree commensurate with its temperature, necessitated the adoption of rules and regulations for the

purpose of adjusting the operations to the best standards for the protection of life and property. Fires and explosions are inherent hazards that are ever present and may cause accidents if the installations and handling, incident to this service, are not in accordance with the best of safety practices. Rules and regulations have been promulgated by certain departments of our Federal Government and through certain agencies connected with our insuring companies, which are more-or-less general in their scope. More specific regulations, dealing more closely with local conditions, have been adopted by at least 16 states, to cover their respective operations.

#### **Tanks Must Stand High Pressures**

All effective regulations of today require the standardization of tanks and containers in regard to construction. When a pressure exists in confinement, above the atmospheric pressure, the container that confines the pressure must be sufficiently constructed to hold that pressure without leak or injury to the container.

Regulations require certain practices for the handling of this product known as butane, which has so many characteristic properties. For instance, it is dangerous to fill a tank or container to its maximum water gallon capacity with a product that expands with every degree rise in temperature. Provision must be made to take care of the force resulting from the thermal expansion, and the regulations give a table for the "filling densi-

ties" of respective containers. Regulations provide for certain definite practices to follow in connection with the installation of equipment. A vaporous gas exerting a pressure will travel to an opening where the pressure is being released and for this reason, gas will rise up and out of the discharge valve of a tank and into the discharge lines. This same gaseous vapor, from butane has a specific gravity of 2.0, which means that it is twice as heavy as air. If a leak occurs about the tank or the delivery lines, or if excess vapor is relieved from the tank through the safety relief valves, then it is incumbent that this escaping gas become dissipated in the atmosphere and that the vent pipes discharge the vented vapors above all adjacent buildings or obstructions to prevent the accumulation of this heavy gas in pockets close to the ground.

#### To Avoid Condensation

Another well-known principle is that a liquid flows down hill. Therefore all piping should be installed in such manner as to provide a fall toward the tank to allow for the drainage of condensates away from the appliances.

In Louisiana, there were approximately 15 dealers engaged in the butane gas business in 1938 when the legislature passed the law placing the industry under regulation. Today we have 44 dealers, each bonded to the State under a \$10,000 surety bond and operating under the Rules and Regulations of the Louisiana Public Service Com-

mission. In addition to the 44 retail dealers, there are 14 bonded manufacturers of tanks and equipment. These bonded operators report all the equipment appurtenant to the gas systems that are shipped or installed for use in Louisiana, giving the construction specifications with the assurance that only A.S.M.E. Code-built tanks shall be shipped or installed. The distributors of butane gas fuel furnish current reports to cover the specifications of the gas distributed and including the refiner's analysis of the product to insure its use in containers of sufficient working pressure construction. These few salient items under regulation, along with the many other sections, tend to standardize the operations, affording the utmost protection to the public against carelessness and inferior equipment and restricts the industry to tested and approved systems to be handled only by competent personnel under bond to guarantee competency. The use of inferior or unsuitable equipment, handled in a careless manner, with a prime motive for quick sales and heavy turnover, without regard for the future service, safety or well-being of the butane gas industry, would tend to increase the hazards, provide more opportunity for accidents and materially lower the standards of the business and, by so doing, jeopardize the investments of the established dealers. A single accident, caused by carelessness in the industry, not only affects the business and standing of the dealer immediately involved,

but it affects the operations of every other dealer and manufacturer so engaged in America.

The "dollar" success of this industry has attracted a great many business men during the past few years and a great deal of capital has been invested. Did you know that the natural gas industry has become one of the largest industries in the nation? It ranks with steel, automobiles and railroads, and its investment opportunities are considered superior to the others mentioned.

#### **Industry Must Become Scientific**

Your industry is complementary to the natural gas business. At present there are 24 states in the Union that are producing natural gas in commercial quantities, which provides a spread of gas fuel consciousness over the nation. As the steel industry, the telephone and telegraph companies, the automotive industry and the natural gas industry have all gone scientific, so now we, in founding the liquefied petroleum gas industry, must become scientific, or at least adopt the Scientific Habit of Thought.

We offer to help you establish your enterprise along the lines of scientific management, for success in operations, for success in making money. This "Scientific Habit of Thought" in any industry, is nothing but *trained and organized common sense*. The man of science simply uses with sound judgment the methods and practices which the public habitually uses carelessly. The successful businessman must be just as scientific as

the chemist, the physicist or the doctor. The use of these scientific habits or well organized methods, may be termed "Tough or Planned Thinking" rather than that of the easy careless manner.

Let me then leave this statement with you: That the scientific, orderly conduct of your business, along lines established by the most experienced minds that have engaged in this business before you, will result in building your business; it will stabilize your enterprise and secure respect and confidence for you. I hope that you will accept my recommendation to seek the guidance and protection of sound and sensible regulation so that you can operate your business and compete under orderly and regular practices which will afford protection for life and property as well as protect your investments and business standing.

Regulation means only the establishment of order out of chaos. Why then, should the butane industry, in its own interest and the interest of the public it serves, be deprived of orderly rule and guidance for the conduct of its affairs? I am for strict, but fair regulation that is uniform and sensible in its application. Do not recommend regulations that are too copious or too detailed; do not include sections that are impossible to comply with; have enough regulation but not too much; then understand the provisions that are stipulated, and the honest abiding therewith will result in a much improved operation that will be beneficial to you and materially aid the industry.



Butane supplies all fuel requirements of this "rolling restaurant," that sometimes serves over 100 meals a day to carnival crowds and employees.

## *Butane Speeds Up a Carnival*

**B**UTANE is playing an important role in the daily operations of the Crafts Shows, one of the West's largest traveling carnivals. The installation of LP-Gas equipment took place early in 1941 while the shows were in winter quarters near Burbank, Calif.

Butane was first used by Crafts Shows in the kitchen. Meals for over 50 men were prepared daily during the three months that the shows were not on the road. The fuel was used for cooking, water and space heating.

The engineering and installation of the butane equipment was performed by the Electric and Carburetor Engineering Co., of Los An-

geles, which also similarly equipped the Crafts traveling units later.

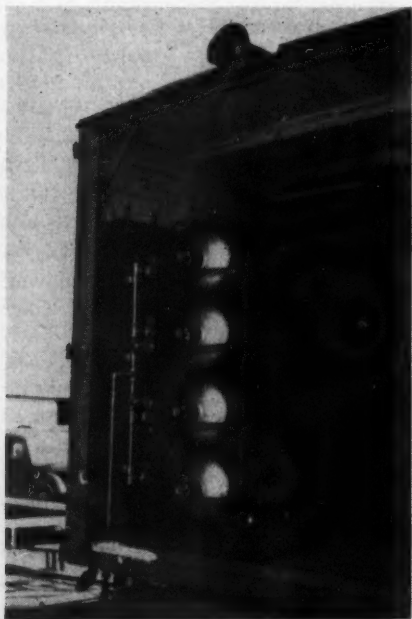
Fuel for the winter kitchen was supplied from a battery of four 25-gal. Hackney cylinders. Two four-burner Ransome ranges, each with large ovens, were in use. The chef says cooking is much easier and faster now, and speed is important when you are cooking three meals a day for 50 hungry men.

Butane has become standard equipment around the winter quarters for other than domestic uses. In the shops it is applied to cutting and bending steel in the building and repairing of equipment. A large plant for steam cleaning the



several hundred huge trucks owned by Crafts, operates on the same fuel, and it is also used in the process of bending glass tubes for Neon decorations and signs. According to the glass bender in charge of this work, butane is an ideal fuel for such purposes as it has a high B.t.u. content, is easily transported and is economical.

After butane proved so successful at winter quarters, managers of Crafts Shows decided to use it on their traveling shows. Unit No. 1 of their three shows was the first to be so equipped and is now on the road, making stops in towns and cities throughout California.



From these four cylinders, which provide a four-day fuel supply, butane is piped underground to the cookhouse.



A view of part of the kitchen at the carnival's winter quarters. Notice the two large butane operated ranges, on which meals are prepared for 50 men.

According to reports, the installation has proved entirely successful and the operators of the show are enthusiastic about butane as a fuel.

Unit No. 1 is made up of 20 individual shows and nearly 300 men and women are employed. All of the employees travel with the show, most of them eating a part or all of their meals at the traveling restaurant, called the "cookhouse," that accompanies the unit.

As the cookhouse is also the carnival stand where the show crowd buys sandwiches, coffee and other refreshments, the number of people served each day totals many hundreds. According to the cookhouse manager, a thousand meals a day are often served over the counters of his traveling restaurant.

The amount of equipment used in or in conjunction with the ordinary carnival cookhouse is indeed



amazing. Comparable to a good sized restaurant, it must be dismantled and packed into a van seemingly far too small to hold the half of it.

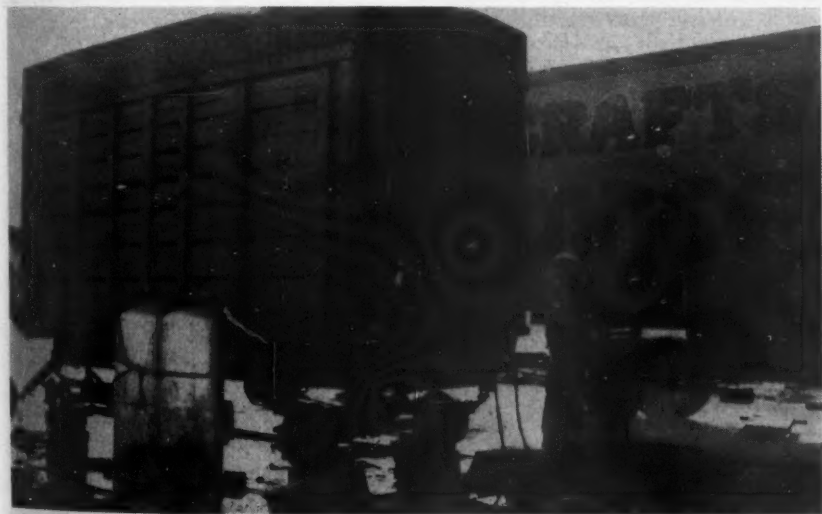
In a carefully selected spot, near the back of this large van, the butane storage tanks for the cookhouse are stored. There are four of them, mounted horizontally, well protected, yet easily accessible for inspection and filling. The four tanks will hold a total of 100 gallons, about a four-day supply.

In most towns the show stops over for about a week. During this time the cookhouse is set in place and all appliances are hooked up to the butane line from the truck, always some distance away. All of this work takes a surprisingly short time. Last year's record was two and one-half hours.

Equipment in the traveling cookhouse consists of a four-burner range with full oven, four-burner stove for large pots, a two-burner griddle and steam table. Nearby are four hot dog stands and a stand with a candy apple machine, each using an individual 5-gal. butane cylinder.

The cookhouse is operated on restaurant style and usually does a much larger business than the average small eating house. In 1940 over 5500 pounds of coffee were used. Important in the successful operation of the cookhouse is the matter of speed with which the food must be served. There's no time for "slow fuel" when crowds are demanding food. That's why the cookhouse manager says, "I like butane, it's fast."

Craft Shows units No. 2 and No. 3



Butane is also used in the steam cleaning plant at Craft's winter quarters. Over 50 trucks are cleaned periodically with this equipment.

are being converted to use butane and will be ready for the summer circuits. There are several other shows that have followed Crafts' lead and have equipped their cook-house units for butane. From all reports, LP-Gas is the most practical fuel ever used by them.

Plans for a large permanent butane storage tank at the winter quarters of the Crafts Shows are now being made. This will simplify the fuel supply and will enable bottles for the several units to be filled more easily. It will also allow the filling of smaller bottles used in various parts of the winter quarters and in the trailers owned by many of the employees. The use of butane in trailers for heating and cooking is rapidly growing in popularity with the show people. They say, "Butane is the best answer to our fuel problem, and makes our trailers seem like home."

## **American Gas Service Co. Opens New Branch**

The formal opening of the American Gas Service Co.'s new division plant in Grove City, Ohio, was held recently, revealing to the people of that community a \$25,000 establishment designed to "bring metered gas to rural homes." The American Gas service Co. is a subsidiary of the Blaw-Knox Corp. with home offices in Pittsburgh, Pa. Originating in 1935, this gas service company now serves close to 13,000 homes in rural areas and has 14 divisions covering seven states and the District of Columbia.

The Grove City division of the company has its own display room, office, warehouse and bulk plant, storing on the premises 18,000 gallons of butane. A fleet of seven trucks is operated for installation, delivery, refueling and service purposes. The Grove City division, which employs 12 persons, is managed by W. W. Lang, with the company since 1939.



**The sales organization of the Peerless Manufacturing Corp., Louisville, Ky., at its annual meeting, March 10-12 at the factory.**

# Southern Section Meets In New Orleans April 28-29

THE annual meeting of the Southern Section of the Liquefied Petroleum Gas Association meets this year at the Roosevelt hotel, New Orleans, April 28-29 under the chairmanship of Louis Abramson, Jr. R. L. Edwards is secretary.

A dinner dance will be held on the evening of the first day, Monday, and at the Tuesday luncheon will occur the election of officers and other current business.

The first morning will be given over to registration and the opening address is scheduled for two p.m. The complete program follows:

## Subjects Cover Wide Field

"Problems of the Liquefied Petroleum Gas Dealers in the State of Louisiana," by W. P. Thomas, superintendent of the gas division, in the department of public service, State of Louisiana.

"Cold Climate Operation of Underground LP-Gas Systems Designed for Single and Two-Stage Batch Vaporation," by H. L. Norway, The Bastian-Blessing Co.

"Underground Corrosion — Its Cause and Cure," by William F. Lehmkuhl, president of Louisiana chapter of American Chemical Society.

"Liquefied Petroleum Fuels and Their Utilization," by Walter H. Hoagland, Shell Oil Co., Inc.

"Underwriters Laboratories and the Butane Industry," by A. J. Bonner, engineer, Underwriters Laboratories, Inc.

From 10 to 12 o'clock on the morning of the second day will be held an exhibit and the last event of the two-day program will be a question box with open discussion from the floor.



## Alabama LP-Gas Dealers Form New Association

Cecil Gardner, president of Automatic Gas Co., Selma, was elected president of the Alabama Butane Gas Dealers Association at the organization meeting in Birmingham recently. D. F. Jacobs, president of the West Alabama Butane Gas Co., Demopolis, was named vice president and Eunice Broome, secretary to President Gardener, secretary-treasurer. E. E. Griffin, president of the East Alabama Butane Gas Co. was named chairman of the board of directors. Other directors are: Selwyn Turner, president, National Butane Gas Co. of Alabama, Mobile; James Parks, president, Druid Butane Gas Co., Tuscaloosa; Paul Jones, general manager of Butane Gas Service Co., Montgomery; and George E. Brett, president, Brett Butane Gas Co., Birmingham.

The new association voted to affiliate with the national Liquefied Petroleum Gas Association and adopted a constitution and by-laws similar to that of the Arkansas association.

# Natural Gasoline Convention

## Features Research

The introduction of a new charcoal method for determining the gasoline content of natural gas, in a paper by H. L. Oder, Cities Service Oil Co.; new volume correction factors for liquefied petroleum gases, prepared by C. R. Williams, Continental Oil Co.; and new light variables in Reid vapor pressure determinations, submitted by F. M. Allen, Indian Territory Illuminating Oil Co., were among the technical reports featuring the twentieth annual convention of the Natural Gasoline Association of America, April 23-25, in the Baker Hotel, Dallas, Texas.

### Laboratories Cooperate

T. R. Goebel, Shell Co., Inc., Houston, was chairman of the program committee. One research project of the Technical Committee, concerned with possible standardization of apparatus and procedure in low temperature fractional distillation, was given its first public presentation in a paper by C. E. Wharton and H. A. Montgomery, Hanlon-Buchanan, Inc., Gladewater, Texas. In this project, 15 different laboratories of large companies have been cooperating for over a year in the exchange and analysis of identical gas samples in a study of duplicability of results. All of this data has been correlated and the comparative results are of unusual interest to the industry.

A high pressure gas session attracted the attention of engineers engaged in repressuring, pressure maintenance and recycling operation with such papers as "Close Fractionation in the Manufacture of Special Products at National Gasoline Plants," by R. A. Carter, Continental Oil Co., Ponca City. This paper had a prepared discussion by Dr. G. G. Brown, University of Michigan. Of interest to all plant engineers was the discussion of H. W. Harts, Warren Petroleum Corp., Tulsa, on "Close Fractionation in the Manufacture of Natural Gasoline Plant By-Products." The separation of individual hydrocarbons with close boiling ranges to obtain pure products, economically and in commercial quantities, involves a number of difficult engineering problems, many of which were covered in this paper. The paper was discussed by J. L. Gallagher, Sinclair-Prairie Oil Co., Tulsa, Okla.

### The Industry and National Defense

In addition to an address by George P. Bunn, Phillips Petroleum Co., president of the Association, a feature of the general session on the opening day, was an address by Elmer Schmidt, vice president, Lone Star Gas Co., Dallas, whose subject was "Natural Gas and Gasoline in National Defense." During this same session, Dr. F. H. Dotter-

weich, Texas A & I College, Kingsville, Texas, presented a paper on "Useful Products from Natural Gas." This was a non-technical summary of the processes by which a growing number of valuable synthetic products can be made from the individual hydrocarbons in natural gas. The paper traced the raw material through the ultimate product. The general economics of such operations were reviewed.

Other papers of wide interest were: "Safety in Handling, Shipping and Marketing of Liquefied Petroleum Gases," by G. L. Brennan, Philgas Division, Phillips Petroleum Co., and "Compressor Losses Caused by Orifice Meters," by V. E. Middlebrook and Jed Burnham, Shell Oil Co., Inc. The "Operating Kinks" session, an open forum prize contest in which field, plant

and laboratory men compete with their original ideas for doing any job within their province in a safer, cheaper or quicker way, again occupied most of the last convention day. In recent years this program feature has grown in size and popularity until it has become a virtual mine of information on unique and practical operating methods and practices.

In addition to Mr. Goebel, the program committee consisted of the following: H. H. Beeson, Sabine Valley Gasoline Co., Inc., Shreveport, La.; Geo. E. Edgett, Carter Oil Co., Tulsa; H. A. Ells, Cities Service Oil Co., Bartlesville; F. E. Fisher, Skelly Oil Co., Pawhuska, Okla.; R. D. Gibbs, Union Oil Co. of California, Los Angeles; and Allen T. Givens, Coltexo Corp., Monroe, La.



The bulk plant of the Joplin Butane Gas Co., Inc., Joplin, Mo.

# Facts the Dealer Should Know

By F. S. JOHNSON

Blish, Mize & Silliman Hardware Company,  
Atchison, Kansas

**Y**OU can rise\* on the tidal wave to prosperity by selling more liquefied petroleum gas systems. This business has increased phenomenally during the past few years, examples of which may be seen in such domestic consumer sales increases in which 1938 showed a gain of 41.7% over 1937; 1939 an increase of 51.3%; 1940 an increase of 46.3% over the previous years. There is only one reason for this unprecedented growth, that is people prefer to use gas.

Gas can do the "four big jobs" in any home—cooking, water heating, refrigeration, and heating. It also can be used for lighting.

The convenience, cleanliness, and comforts of natural, manufactured, or bottled gas are well known to sixteen million families in the United States. Fifteen million families remain who are now using coal or wood, oil or electricity. The majority of the sixteen million could use the other types, but prefer gas because of its flexibility.

Liquefied petroleum gas brings all the convenience of manufactured or natural gas to the rural and suburban home owners beyond the gas mains.

\* This is a paper delivered by the author before the Nebraska Retail Hardware Association state convention in Omaha, Feb. 5, 1941.

If you are going to engage in this business, it is important you should know some of the characteristics of liquefied petroleum gas systems. The two chief gases used for this purpose are propane and butane.

The boiling points of these two gases are important because at the boiling point propane or butane changes from a liquid to a gas. The boiling point of propane is 42° below zero; of butane 32° above zero. Below the boiling point either liquid could be carried in an open bucket the same as water. Therefore, to provide a temperature above the boiling point, butane generally must be buried where the heat of the earth is sufficient to keep the temperature of the liquid above the boiling point.

## I.C.C. Approval Needed

These gases must be stored in specially provided containers which have been approved by the I.C.C. and other agencies.

The pressures vary with the temperature as would be indicated:

Propane:	0°—	2 3/4 lb. pressure
	70°—	109 lb. "
	100°—	172 lb. "
Butane:	33°—	0 lb. pressure
	70°—	17 lb. "
	100°—	37 1/2 lb. "

Therefore, a pressure reducing

**BUTANE-PROPANE News**



regulator is needed to reduce this variable pressure to a constant pressure to the appliance.

It is also important that we know that the specific gravity or the weight of these gases is heavier than air. If we were to fill three ordinary toy balloons, each to the same capacity, the natural gas balloon would float away in the air because this gas weighs only two-thirds as much as air and therefore would rise, but propane weighs 1.55, or is one and one-half times heavier than air and therefore would fall to the floor. Butane is even heavier, weighing slightly over twice as much as air. This is important, since any escaping propane or butane would immediately settle to the ground and flow to a low place.

It is therefore very important that every precaution be taken to prevent escapement of butane or propane that it may not become a hazard. However, these gases are no more hazardous than gasoline if properly handled.

#### Heat Contents Compared

Another comparison that is important is the B.t.u. content of these gases. Manufactured gas is generally about 550 B.t.u.'s per cu. ft.; natural gas about 1600; propane 2500; butane 3300. While it takes about 11 parts of air to properly mix one part of natural gas, it requires 24 parts of air to one part of propane, and 31 parts of air to one part of butane. This, in itself, should indicate that special equipment is necessary for the best results in burning LP-Gases.

These systems are not complicated. In the last analysis it requires only a tank or cylinder, a pressure reducing valve, and the connecting equipment to a gas range, water heater, or whatever appliance may be used.

The adjustment of the appliances is not a great deal different than with natural gas, which is adjusting the burners to obtain a proper balance between the flow of gas and the entrainment of the primary air at the burner mixer.

#### Burner Characteristics

Because of the more intense flame with liquefied petroleum gases, the flame is shorter, therefore the burner must be closer to the cooking top. The burner intake, the throat of the burner, the size of the drill or slot in the burner would all be different. It is not simply a matter of changing the orifice size on a gas range to make a satisfactory conversion.

There are unlimited opportunities in this field as evidenced, for example, in Nebraska with 121,261 farms, and only 16,000 of these wired for electricity. This gives a waiting market of 86.8% where liquefied petroleum gas systems may be sold. Here is a virgin, pre-sold market that has been developed through general knowledge of this product, resulting from use and from articles appearing in leading national periodicals.

These systems are low in price in comparison to the convenience offered to the housewife. The two systems make a flexible program for home owner or renter.

Maximum profits are available in the sale of this equipment because there need not be any sizable trade-ins. There is a minimum amount of service and generally no repossessions. Once a liquefied petroleum gas system is installed, the purchasers generally depend upon this for their cooking. To discontinue this service would mean the replacement of the entire unit and the loss of their initial purchase. Customers are always interested in purchasing labor-saving and convenience devices. As these systems filter into a community, it soon makes obsolete the old stoves in the neighborhood.

The potential market for liquefied petroleum gas customers is so great that there is no excuse for pirating of customers from underground systems to bottled gas, or the reverse. Neither is there any excuse, with such a large potential market, for sales efforts to be concentrated on taking established customers away from their present sources of supply. The business you develop yourself will be more permanent and more satisfactory, and will show a greater profit.

A dealer who is anxious to build up a social security through the sale and the perpetuated income possibility from these systems needs to have an adequate display of appliances, which will offer his customers a reasonable choice of appliances and price brackets.

There must be specialized selling, but this does not mean essentially that there must be outside selling.

This business is not complicated

but does frequently demand a thorough knowledge of fundamental principles of liquefied petroleum gases and appliances.

Each installation should be made by trained service men who are not only careful, but are thoughtful of their responsibilities and the continued success of this business. Careless installations result in unnecessary hazards or high gas loads due to leaks or improperly adjusted appliances.

If you want to make a success of your liquefied petroleum gas business, then you should first familiarize yourself with all local, federal, and state regulations. You should deal with a reliable source of supply which will give you equipment that carries the Underwriters' label, not on one piece of equipment, but on the entire system. This is for your protection.

#### **A.G.A. Approval Important**

It is equally important that every appliance you sell should carry the seal of approval of the A.G.A. It is also well to carry a liability insurance to insure against carelessness or neglect on the part of employees.

One of the most useful helps that you can have is the authoritative publication entitled "BUTANE-PROPANE News" published in Los Angeles. This monthly magazine carries a wealth of information, both technical and helpful in sales suggestions.

You will also be interested in knowing about the Liquefied Petroleum Gas Association, the national organization for liquefied petro-

leum gas dealers, which has headquarters in New York.

You can sell more liquefied petroleum gas systems if you will acquaint yourself with all of its conveniences and benefits, and sell these features and not the price of the equipment.

Your customers will not be interested in boiling points, pressures, or specific gravities, or the mechanical equipment of your product, but they will be intensely interested in what the liquefied petroleum gases can do for them. They will be interested in its labor-saving conveniences, in its cleanliness, flexibility, and its varied uses. They will be especially interested to know that this service for the four big jobs is available at a price they can afford to pay.

If you rise with the tide of growing popularity of liquefied petroleum gas systems during these next few years, you will have established yourself in a good business, and your profits will be in direct proportion as you have served your customers.

### ◆ ◆ **Calexico, Calif., Trustees Will Consider LP-Gas**

Consideration by the City Trustees of Calexico, Calif., of an ordinance which will regulate storage and transportation of liquefied petroleum gas within the city limits resulted from the application of C. F. Gash, Sr., to operate a 300-gallon tank at the Sherman Apartments.

Final decision was postponed until ordinances of Phoenix and other Arizona cities may be studied and the advice of the local fire chief obtained for the proposed ordinance.

## **L. P. G. A.**

### **Pacific Coast Section Opens Meetings in Four Cities**

**B**RINGING into practical reality the proposal of Chairman Charles E. McCartney, of the Pacific Coast Section, L.P.G.A., to institute district meetings for the benefit of members, groups either have met or will meet during April to formulate plans for regular gatherings.

The Southern California-Arizona division met at the Clark hotel in Los Angeles on April 9, with Mr. McCartney presiding.

The Pacific Northwest division comprising Washington, Oregon and Idaho, has a scheduled meeting at the Heathman hotel, Portland, at 10:45 A. M. on April 26. Sub-Chairman C. A. Marsh will preside.

The San Francisco-Sacramento-Stockton group will gather for a 6:30 dinner at the Leamington hotel in Oakland on April 28. R. A. Hansen, vice chairman of the Pacific Coast Section, will be in the chair. This division includes all of Northern California as far south as Stockton and the entire state of Nevada.

The San Joaquin Valley district including territory from Stockton south to Bakersfield, meets at the Hotel Fresno on April 29, with Robert Merrill, sub-chairman presiding.

Sectional Secretary John H. Kunzel will attend all of these divisional meetings to explain the objectives of the new plan and to publicize the second annual convention and exhibit of the Pacific Coast Section, which will be held at the Fairmont hotel, San Francisco, on June 9-10.

The Pacific Coast Section has established permanent offices at 332 Van Nuys Bldg., in Los Angeles.

# Customers Read Own Meters To Cut Service Costs

**A**N innovation in customer service has been established by the Rural Gas Service, 1848 W. San Carlos Blvd., San Jose, Calif. Customers are instructed how to read the gas meters on their above-ground tanks, and from the monthly consumption record they figure the amounts due and mail their checks to the company.

Several important purposes are thus served. The company, and indirectly the customer, is saved the cost of meter reading and billing; the approximate amount of gas reserve in the tank is indicated by the customer's readings and unnecessary service charges are eliminated, and the customer is given the advantage of not paying for his fuel until it has been consumed, plus a high degree of satisfaction in being able at all times to estimate his consumption. Should the customer make any mistake in reading the meter, due to inexperience, or in figuring his bill, proper adjustment can be made when the tank is refilled.

P. W. Niederauer, who owns and operates the Rural Gas Service, believes that providing meters for measuring gas has contributed directly to the rapid development his company has made. It builds customer confidence and puts the service on a par with that furnished to town residents on the natural gas mains. Medium sized

meters, made by the American Meter Co., have been used in the installations. These are mounted on top of the tanks where they can be easily read.

The company's present showroom and office was located in a suburban district of San Jose to avoid the traffic congestion of his former downtown place of business and so that he could have larger quarters for display and storage room to enable him to carry a complete stock of domestic appliances, tanks and other equipment. Several hundred rural customers are being served.

In his advertising Mr. Niederauer points out that his company is rendering a "city gas service" to those beyond the gas mains.

## Advertising Is Vital

Advertising is important in the plan of any LP-Gas dealer, Mr. Niederauer believes, and he puts his ideas into action by mailing inexpensive folders to the rural residents in the district in which he operates. He keeps the costs down by preparing his own copy and having the advertisements mimeographed at a minimum outlay. These are sent through the mail to rural route box holders at the cost of one cent each. Pre-canceled stamps and a special permit are obtained from the post office to make the job easier.

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**DROP IN**  
TO SEE US  
WHILE ATTENDING  
THE NEW ORLEANS MEETING OF  
THE L.P.G.A. SOUTHERN SECTION

A convenient gathering place.  
Meet your friends at the  
Anchor suite, Roosevelt Hotel.

*Anchor representatives in attendance:*

W. A. (BILL) BADEN  
THURMAN COLE

PAUL SMITH  
GEORGE LINK

HOMER LOVELACE

**ANCHOR PETROLEUM COMPANY**

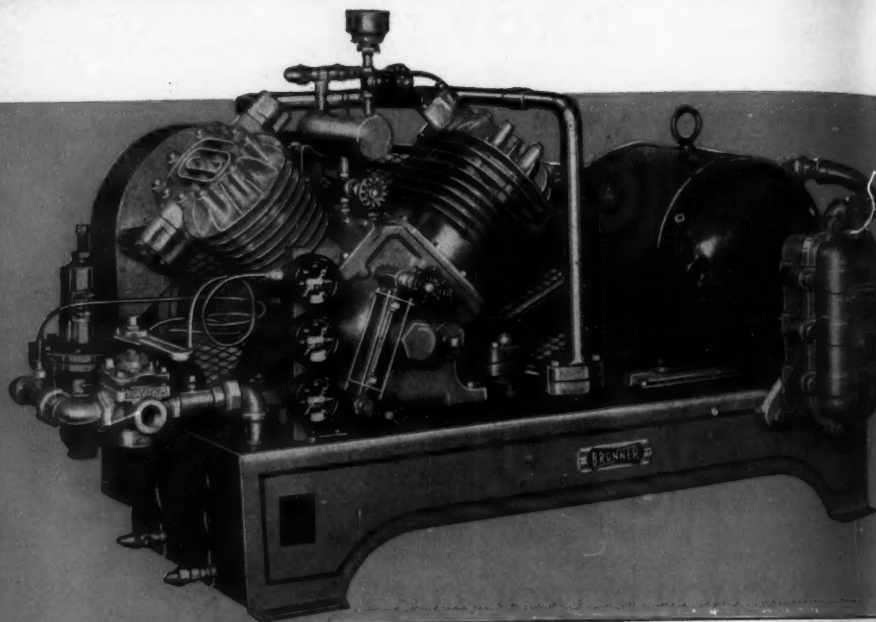
*"Where Butane-Propane is NOT a Side Line"*

ATLAS LIFE BUILDING

TULSA, OKLAHOMA

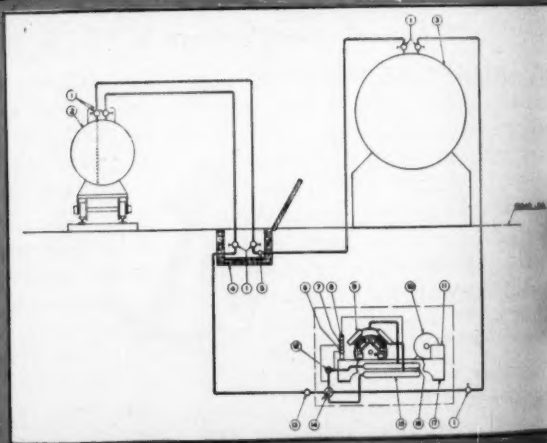


# BRUNNER



● Above: The new Brunner LP-Gas self-contained compressor unit is a V type, 4 cylinder, 5 h. p. unit with suction and discharge valves in valve plate.

● Right: Typical installation diagram showing tank car, storage tank and Brunner LP-Gas Unit.



**BRUNNER MANUFACTURING COMPANY**



# LP-Gas Unit...

## RECOVERS

**500 to 1000 Lbs. Liquid Petroleum Gas  
From Every Tank Car Unloaded**

A Self-Liquidating investment  
that quickly **PAYS FOR ITSELF**  
from savings in gas recovered  
from tank cars unloaded.

The new BRUNNER LP-Gas self-contained  
compressor unit is today's most modern  
unit for handling liquid petroleum gas.  
The savings that operators report ...  
500 to 1,000 additional pounds of gas

recovered per tank car unloaded ... soon  
pays for the original investment of the  
BRUNNER LP-Gas Unit. In addition, the  
reduced time required to unload a tank  
car with this unit adds up in greater  
profits to plant operators. For safety ...  
efficiency ... economy ... check into the  
advantages offered by BRUNNER LP-Gas  
self-contained compressor units for hand-  
ling liquid petroleum gas.



# BRUNNER

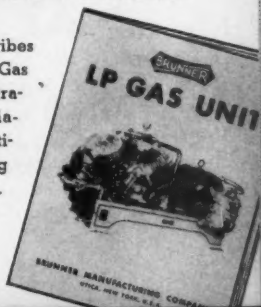
**FOR OVER 30 YEARS  
THE SYMBOL OF QUALITY**

**ANY TICA, N. Y., U. S. A.**

### Write for **FREE** Illustrated Booklet

The new booklet describes  
the new Brunner LP-Gas  
Unit ... contains illustra-  
tions, installation dia-  
grams and other perti-  
nent facts on handling  
liquid petroleum gas.

**WRITE**  
for your copy  
today.



# LP-Gas Aids Country Doctor In Modern, Rural Clinic

**F**EW stories, no doubt, are more familiar to the average American than that of the births of the famed Dionne quintuplets, and of the seeming impossible tasks which confronted the country doctor who brought them successfully into the world.

It may not be so many years until that angle of the country doctor story will be gone forever. What perhaps may serve to help point the way to methods eliminating many of the handicaps of the country doctor is a small, attractive, white building located across from Love Field, the Dallas municipal airport, and housing a clinic established by Dr. W. W. Fuller, Jr., a young physician and surgeon who, admittedly has been doing some tall dreaming.

Dr. Fuller believes that his experiment will be one in which every country doctor may be expected to have eager interest. He, himself, is a country doctor.

## Miniature Hospital Is Complete

There is virtually every one of the devices which is familiar to modern surgery and medicine to be found in this clinic, which is practically a hospital in miniature. And one of the most important facilities contributing to these is butane gas.

LP-Gas served from a 150-gallon tank placed in the rear of the grounds provides fuel for use in a

By JOHN D. MUELLER

gas range housed in the tiny kitchen. It also provides heat for the hot water heater. There is running hot water in each of the several rooms, the waiting room alone excepted. Also, Dr. Fuller, who has sleeping quarters there, has furnished himself with the facility of a shower bath.

The clinic is air-conditioned and



Dr. W. W. Fuller, Jr., planned and drafted the preliminary sketches of his clinic after he had visited all of the many available in Dallas. He has applied every modern device to accomplish efficiency as well as economy of operation.

# BETTER COOKING BETTER PROFITS!

You're selling "Better Cooking" when you sell Florence, for every Florence LPG Range is built, from backguard to toe-base, to satisfy your customers with the easiest, surest, pleasantest cooking they've ever known! "Better Cooking" carries your profit past your original sale into continuing payloads, strengthening your reputation for dependable service.

Right now, Florence is making new customers for you with powerful national advertising reaching millions of homemakers in big-circulation magazines. Make sure of your full share—sell Florence! Write now for full information!



Florence ovens are famous for their dependability! Point out their generous size to your customers. The Tuf-Flex glass sight window is available on several LPG models.

This de luxe range in full white porcelain is one of a great line that gives you a model for every need and every budget!



## FLORENCE STOVE COMPANY

General Offices and Plant, Gardner, Mass.; Western Offices and Plant, Kansas, Ill.; Sales Offices: 1459 Merchandise Mart, Chicago; 45 E. 17th Street, New York; 33 Alabama Street, S.W., Atlanta; 301 N. Market Street, Dallas; and 2730 16th Street, San Francisco.

# FLORENCE

## Gas Ranges

### FOR LIQUEFIED PETROLEUM GAS

MAY-1941

53

heated, the heat furnished from an oil burning central system, which he expects to convert to burn butane.

Dr. Fuller visualized this establishment long ago. He visited the most modern clinics to be found in Dallas. In all of them he saw evidence of too great expenditures for the facilities in hand. Too much space was wasted. There was almost invariable waste, he felt, in halls.

He set about at last to create for himself a clinic which measured up to his ideas. He prepared the entire plans, except for the section in which the heating system is included. Halls were virtually eliminated. What might be otherwise considered a hall is serving him as an X-ray darkroom.



Abundant hot water in a hurry is a frequent need of a doctor. Here is shown Nurse Helen L. Bailey using the butane-equipped range.

Located close to the Dallas airport, and hedged in by all manner of restrictions he had to obtain official permission from Washington, D.C., to build at all. Dr. Fuller was compelled to include in the clinic for the present, quarters to be occupied by himself. These restrictions will eventually be relaxed, and when that occurs what now is a bedroom will be a working room.

Butane gas has been one of the most important factors in the operation of the clinic. Not only has it made possible compliance with the regulation requiring that a kitchen be included in the building as a residence, but it has greatly simplified sterilization processes.

There has been nothing more required for this important operation than the purchase of an ordinary pressure cooker. Placed atop the butane burning range, this familiar household device makes sterilization of every tool and device used by the modern doctor no more than the merest chore.

#### Informality Prevails

A visit to the clinic of a morning likely will find Dr. Fuller enjoying a cup of hot coffee as he discusses the day's schedule with his nurse assistant, Mrs. Helen L. Bailey. She probably will be busily engaged in the sterilization of instruments, of rubber gloves, of bandage materials, and other equipment.

The kitchen is so tiny a place one easily can reach its width. On the one side is the range; across from this a cabinet. Into the latter go the sterilized materials and equipment.

Next to the range is a modern

# Triple Protection

with  
**EMCO Special BUTANE-PROPANE  
VAPOR METER**



# 1

**Against  
PHYSICAL  
DAMAGE**

# 2

**Against  
LEAKAGE**

# 3

**Against  
OPERATING  
WEAR AND  
TEAR**

The two qualities most identified with Propane and Butane Vapor are danger in handling and elusiveness. To minimize danger the EMCO Iron Meter incorporates in its rugged design one with an excessive safety factor. Damage from internal pressure or external forces cannot get the safety built into construction.

The elusive qualities of LPG tax the ingenuity of the designer at points such as gasketed joints and shaft stuffing boxes. In the EMCO IRON Meter, the length of gasketed joints is reduced to a bare minimum and complete sealing is attained by using relatively large screws and special gasket materials on ground surfaces. By using the newly developed solderable glass index, all danger from index drive shaft stuffing box leakage is forever eliminated.

The difficulty in measuring Propane or Butane Vapor originates with its density and its chemical attributes. Careful mechanical design, based on many years' experience in all types of measurement problems, has produced a working mechanism in the EMCO IRON Meter fully capable of meeting these special requirements. Generous bearing surfaces and parts, inherently correct movement and specially treated diaphragms guarantee continuous and accurate measurement.

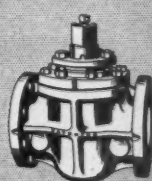
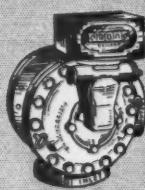
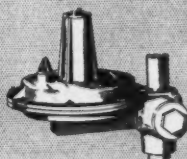
## PITTSBURGH EQUITABLE METER COMPANY

EMCO NORDSTROM VALVE CO.

NEW YORK BUFFALO PHILADELPHIA  
KANSAS CITY TULSA LOS ANGELES

Main Office - PITTSBURGH, PA.

DES MOINES - CHICAGO - COLUMBIA  
MEMPHIS - OAKLAND - HOUSTON



EMCO  
Propane  
Gas Meter

EMCO  
Large Capacity  
Pressed Steel  
Gas Meter

EMCO Type "B"  
Ejector Service  
Regulator

PITTSBURGH  
ROTCYCLE Meter  
for Liquid Butane  
or Propane

NORDSTROM  
Lubricated  
Valve



**Dr. Fuller's nurse uses butane gas and this pressure cooker for sterilization of instruments and other materials.**

refrigerator. There are more items associated with the practice of medicine there than foods, although the time may come when meals for patients will be prepared on the butane range and the clinic become an actual hospital, even though on a small scale.

"I simply kept dreaming about such a place of my own as this," relates Dr. Fuller. "I planned it all myself; and I bought every bit of material which went into it, including the nails. The only part I didn't plan similarly was that included in the air conditioning and central heating systems.

"I look upon myself as a country doctor; and this may be what hundreds of others of them have been thinking of and hoping to have one day."

Dr. Fuller believes there are a multitude of country doctors who will be interested in knowing how LP-Gas will so materially and economically bridge one gap separating them from realization of their desires to possess modern working facilities, for this fuel, easily available in all parts of the country, can be utilized by doctors living even in the smallest towns, or the country, to provide the essential facilities for all manner of medical and surgical practice.

## CALENDAR

**L.P.G.A. Pacific Northwest District of Pacific Coast Section**—Heathman Hotel, Portland, Ore., April 26.

**L.P.G.A. San Francisco-Sacramento-Stockton District of Pacific Coast Section**—Leamington Hotel, Oakland, Calif., April 28.

**L. P. G. A. Southern Section**—Roosevelt Hotel, New Orleans, April 28-29.

**L.P.G.A. San Joaquin District of Pacific Coast Section**—Hotel Fresno, Fresno, Calif., April 29.

### May

**American Gas Association, Natural Gas Section**—Dallas, Texas, May 5-8.

**C. N. G. A. Gadget Night**—Lebec, Calif., May 9.

**Western Metal Exposition and Congress**—Pan-Pacific Auditorium, Los Angeles, May 19-23.

### June

**Association of Gas Appliance and Equipment Manufacturers**—Ambassador Hotel, Los Angeles, June 3-5.

**California Natural Gasoline Association June Frolic**—Los Angeles, June 7.

**L. P. G. A. Pacific Coast Section**—San Francisco, June 9-10.

**Pacific Heating and Air Conditioning Exposition**—San Francisco, June 16-18.

### October

**American Gas Association 23rd Annual Convention**—Atlantic City, the week of October 20.

**California Natural Gasoline Association, 16th Annual Fall Meeting**—Ambassador Hotel, Los Angeles, October 31.



# IT JUST *Sounds* SIMPLE

VALVE: Any device for regulating the flow of a liquid or gas.  
—Webster.

The simple definition of a valve as given by Webster and the engineering and ability actually required to manufacture the superior L. P. G. Valves as developed by the veteran L. C. Roney organization are worlds apart.

For to L. C. Roney Inc. valves are a most important mechanism which for years must not only control but must safeguard L. P. G. installations. To this end all the experience and resources of the firm of RONEY have gone into the development of valves which will do their jobs to perfection—safely, easily and at low cost.

Roney L. P. G. Valves and numerous other equipment for the industry are described and illustrated in our two free booklets. Send for them today.

*Whatever the Need  
Whatever the Problem*  
**"WRITE RONEY"**  
Largest and most Experienced Manufacturing  
Engineers and Jobbers of L. P. G. Equipment.

**L.C. RONEY INC.**

1740-44 W. 59<sup>th</sup> ST. • LOS ANGELES, CALIF.



**LP-GAS**  
*dealers say:*

# **"PUSHING GAS REFRIGERATION**

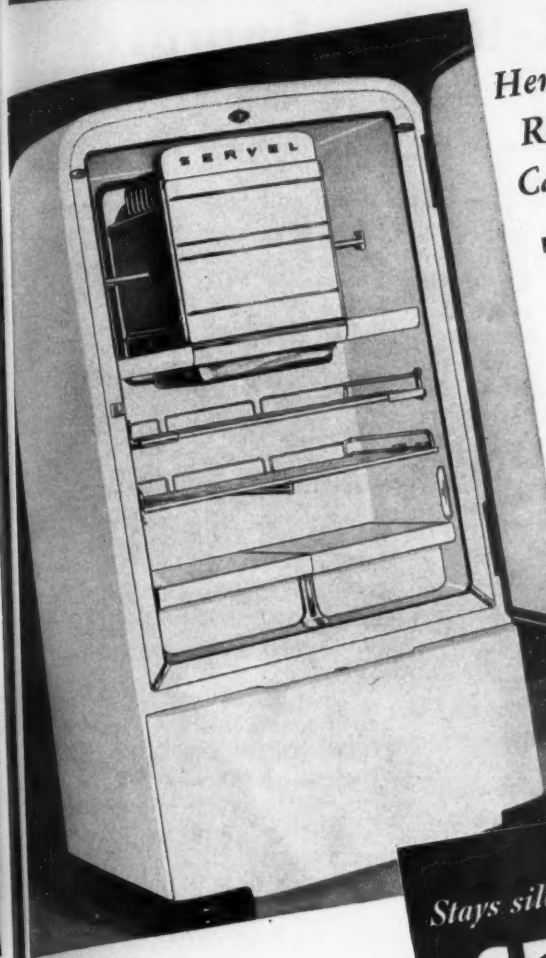
**HAS HELPED OUR  
BUSINESS CLIMB!"**



**1** "Selling Servel Electrolux refrigerators has opened the door for us to increased gas load. This modern appliance readily appeals to our present customers . . . frequently helps us crack a tough prospect."



**2** "The Gas Refrigerator has a big edge over other 'automatics,' too. People can see that Servel's basically different freezing system, without moving parts, gives lasting advantages. It 'Stays Silent—Lasts Longer.'"



## Here's How Gas Refrigeration Can Help You:

**PROTECT PRESENT  
LOAD**



**BUILD NEW LOAD**



**INCREASE  
APPLIANCE SALES**



**PUBLICIZE THE  
MODERNITY OF GAS**

*Stays silent...lasts longer*

**SERVEL**  
ELECTROLUX  
*Gas*  
REFRIGERATOR

3 "Yes, selling Servel Electrolux is a most profitable phase of our LP-Gas business—from many points of view. It nets us a direct merchandising profit, naturally; but it also helps us increase gas load, build appliance sales, protect our present gas load."

a big  
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News

MAY-1941

# Tank Retesting Improved

By A. N. KERR

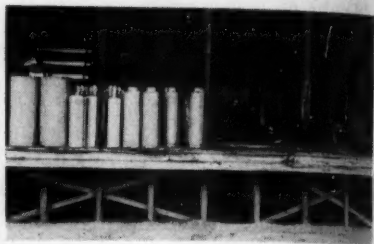
President, Imperial Gas Co., Los Angeles

**T**HE method used by Imperial Gas Co., Los Angeles, Calif., for testing LP-Gas cylinders to conform to I.C.C. specifications is still relatively the same as in 1939. (See BUTANE-PROPANE NEWS, Oct. 1939, page 14.) Certain innovations, however, are almost bound to develop in the testing of 23,000 tanks, as has been done by our plant since it opened.

Retesting must be done, of course, in a sheltered place to insure against temperature changes due to the hot sun. Our retesting plant, built a few years ago, is necessarily of considerable size, especially as a large platform is required for holding truck loads of cylinders. In addition to the testing equipment proper, many heavy hammers, dies and filing cabinets for records are essential. Records of tests made must frequently be sent to the Bureau of Explosives, and of course we must keep our own files regarding cylinder numbers, date last tested, etc.

## Paint Thinner Replaces Water

The cylinders to be tested now are filled with a paint thinner in place of water which was formerly used. This aids in preventing the regulators from "freezing" due to the presence of water in the cylinders. The cylinders are then in-



Exterior view of Imperial Gas Co.'s cylinder testing laboratory.

serted in one of the two open-top tanks, depending on the size of the cylinder, and connected to a hand pump, also filled with paint thinner.

Pressures as high as 520 pounds are then applied by means of the pump against the interior of the cylinder. Expansion of the cylinder, due to internal pressure, displaces the liquid in which it is immersed, which rises into a graduated pipette.

Any tanks in which the elastic limit has been exceeded due to the pressure may easily be detected. In addition, the design of the cylinder must be mathematically perfect or the tank will yield in some minor part, such as the head. About one to two per cent of the tanks will have been dinged or man-handled so that they will not fully comply with the test. These



# RELiance REGULATORS PIONEERED

Reliance Regulators were the first to be used in the Liquid Petroleum Gas Industry. They still maintain their leadership for safety, convenience, freedom from attention and certainty of performance.

Patented features  
include an indicator that  
shows the customer when to  
order more gas. Two-step  
reduction relieves stresses on the  
Regulators and insures safe  
and economical operation  
of appliances.

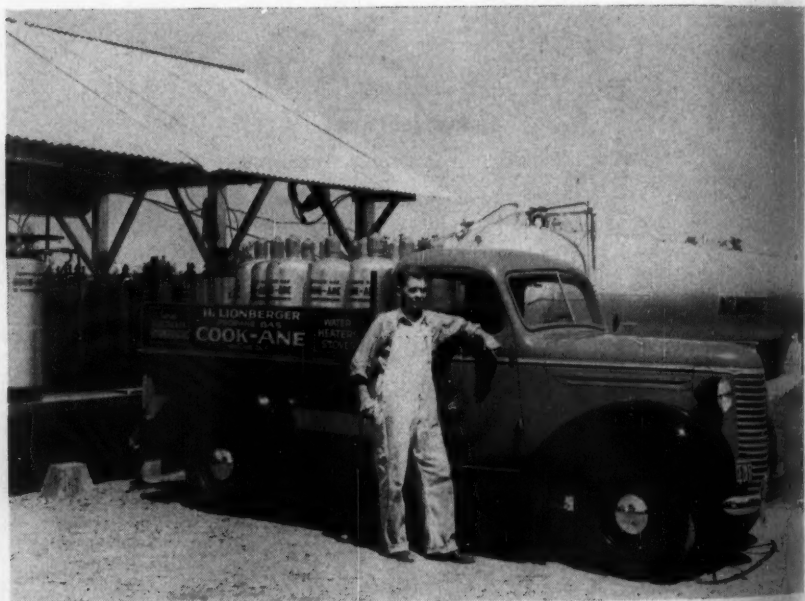
**RELiance REGULATOR CORPORATION**  
**1000 MERIDIAN AVE., ALHAMBRA, CALIFORNIA**

are either withdrawn from service or reannealed.

A rotary pump driven by a motor returns the liquid to an overhead tank. After testing and emptying, the remaining paint thinner is allowed to evaporate from the tank. Any drops of water which may lie in the bottom of the container are detected by using a flashlight on a long extension which is lowered into the interior of the cylinder. Water is expelled through a fuse plug opening or through a dip pipe by means of gas pressure.

One man can test 20 to 30 small cylinders per day and from 10 to

15 larger tanks, providing the cylinders are not troublesome. Our testing is done by J. Sterling Parr, who has been in our employ for several years. The plant is regularly inspected by O. D. A. Pease, of the Bureau of Explosives, San Francisco. The work is very important because, should any cylinder be the cause of difficulty, the Bureau of Explosives immediately checks its records and frequently inspects damaged cylinders with the thought of eliminating defective design. Such care and regulation are of inestimable value as safeguards for all connected with the LP-Gas industry.



H. Lionberger, LP-Gas dealer in Woodland, Calif., and his bulk and filling plant.



# For NATIONAL DEFENSE



**RANSOME**  
BUTANE-AIR GAS SYSTEMS  
FIELD RANGES  
WATER HEATERS  
PLUMBERS POTS  
TORCHES

We have available a complete line of torches and burners which operate on natural, manufactured or any of the liquefied gases. Many of our products are applicable in defense construction and manufacturing, a few were designed specifically for the armed forces. Our engineering talent and manufacturing facilities are now at the disposal of the defense administration.

## RANSOME COMPANY

*Designing and Constructing Engineers*

4030 HOLLIS STREET • EMERYVILLE, CALIFORNIA

*Ransome*

MAY-1941

FOR

DEPENDABLE PERFORMANCE



**REGO**  
PRESSURE REGULATOR

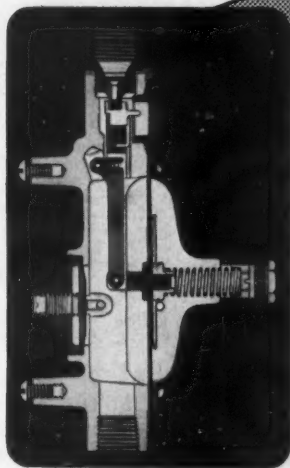
# USE REGO PRESSURE REGULATORS

## PROVEN SAFETY

the finest materials are used in Rego Regulators—to resist the action of fuels either in gaseous or liquid state.

Regulators have large diaphragms which maintain close regulation of service pressure.

Discs and nozzles are easily removed for cleaning or replacement without disconnecting regulator.



The pressure regulator is the heart of any gas system. On this unit depends the safety of operation and dependable performance of all LP Gas systems. Rego Pressure Regulators are not adaptations for some other type of service but are particularly designed and constructed for present day liquefied petroleum gas applications.



Use Rego Regulators — Safe — Dependable.  
Listed and Approved by Underwriters' Laboratories.

The **BASTIAN-BLESSING** Co.

258 E. ONTARIO STREET

CHICAGO, ILL.

Pioneers in equipment for using and controlling high pressure gases.

## P. C. Section Meets June 9-10

**P**LANs for the second annual convention and exposition of the Pacific Coast Section, Liquefied Petroleum Gas Association, Monday and Tuesday, June 9-10, in the Fairmont hotel, San Francisco, Calif., are now complete, according to the announcement of Charles E. McCartney, chairman of the Pacific Coast Section.



C. E. McCARTNEY

Monday and Tuesday morning will be given over exclusively to tours of the exposition and its exhibits. The Monday afternoon program will consist of an address of welcome by Charles E. McCartney; an address by an executive officer, L. P. G. A., and three papers. One of these will be "Sell the Bloom of the Rose, Not the Seed," by E. C. Sorby, promotion director, Geo. D. Roper Corp., Rockford, Ill. This will be especially prepared for dealers in fuel and domestic appliances, and will include cooking a meal during delivery of the paper. Facts and figures on the relative cost of LP-Gas and competitive fuels will be presented.

C. L. Parkhill, vice president, Parkhill-Wade, Los Angeles, will

present an illustrated paper titled, "A Survey of the LP-Gas Internal Combustion Engine Market." The final paper on the program will be a joint presentation by Max Anfenger, safety engineer, and Dr. O. W. Johnson, both of Standard Oil Co. of California, titled "Physical Properties of LP-Gases," a repeat-by-request paper from the meeting in Fresno, Calif., last October.

Monday evening will be for feast and fun at the usual banquet. The entertainment will be called the "Frisco Frolic," and will present headliners of stage and radio.

The entire program for Tuesday afternoon will be devoted to an LP-gas safety and fire demonstration.

Special transportation arrangements have been made for those attending from outside California. Special L.P.G.A. cars will be attached to fast trains to San Francisco from points in Washington, Oregon, Nevada and Arizona. Likewise, members attending from the East and Midwest will gather in Chicago and travel to San Francisco as a group in special L.P.G.A. cars while those attending from the South and Southwest, will meet in New Orleans and at points en route and travel in a body.

Those desiring detailed information concerning exhibits in the 60 booths, the convention program, transportation arrangements, etc., may communicate with John H. Kunkel, secretary, 332 Van Nuys Bldg., Los Angeles, Calif.

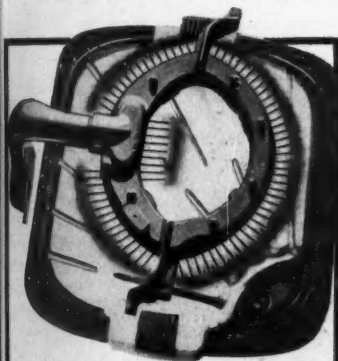
# ROPER

## GAS RANGES

### *Ring the Bell*



## WITH MANY NEW FEATURES AND SALES PULLING PROMOTIONS



### *New* "GLO" BROILER BURNER

Provides penetrating "Infra-Red" heat that speeds up broiling as much as 20%. Add to that the "Staggered Top," "Peasant-Ware" Broiler with Serve Tray, and other exclusive refinements and you have FEATURES THAT SELL.

Ring the bell for kitchen freedom—and housewives will help you ring your cash register. More than ever before, Roper Gas Ranges bring you a combination of profit-making sales promotional plans and new, improved features.

#### WRITE OR WIRE FOR DETAILS

Ask about the "Let Freedom Ring" campaign, a sales-puller that is really timely.

## **GEO. D. ROPER**

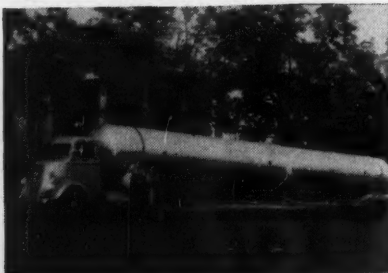
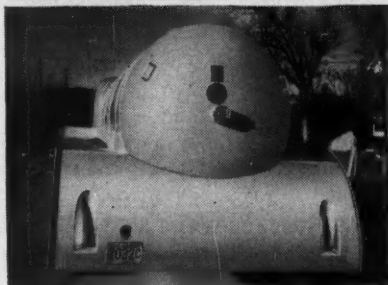
CORPORATION

General Sales Office and Plant: Rockford, Illinois

ROPER GAS RANGES FOR ALL GASES INCLUDING LIQUEFIED PETROLEUM GAS

MAY-1941

# BANKS TANKS DOMINATE

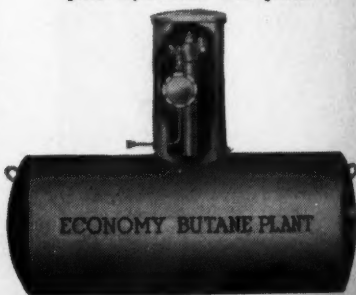


Why not look to the leader for better tank values? For the second time this year, due to the rapid increase in production, it has become necessary to enlarge our plant. October, 1940, we sold 900 Economy Butane plants alone not including Truck Tanks and other fabrications. You profit from our tremendous buying power and large production. "Tanks by Banks" are A.S.M.E. code built, underwriters approved. Inspected by the National Board Inspector employed by Ocean Accident and Guaranty Corporation Ltd.

## Butane Propane—

- ★ UNDERGROUND TANKS
- ★ BULK STORAGE TANKS
- ★ SKID TANKS
- ★ TRUCK TANKS

Phone, write or wire for complete information and prices.



# DALLAS TANK

AND  
WELDING COMPANY, INC.  
201-5 W. COMMERCE ST. DALLAS, TEXAS



*And now!*

# MR. DEALER — BANK'S SELLS RANGES TOO!

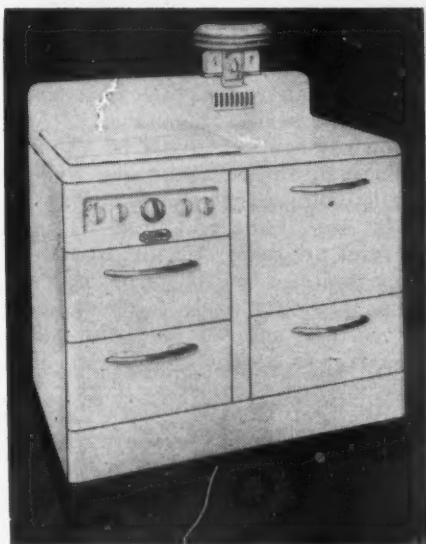
## Announcing The New ECONOMY Gas Range Line!

The Dallas Tank & Welding Company  
are now exclusive distributors of the  
ECONOMY Gas Range Line!

Mr. Dealer, you can step out of the  
competitive market by handling the  
ECONOMY line of gas ranges manufac-  
tured under the ECONOMY trade name  
exclusively for us.

Let us demonstrate that the ECONOMY  
range, dollar for dollar, is the greatest  
value any manufacturer ever offered.  
Styled to give lasting beauty and designed  
to give lasting satisfaction because it has  
all the convenient and economical features  
of most other ranges selling at higher  
prices. Here's a value you cannot afford  
to pass over! Check over the outstanding  
features and write today!

*Exclusive Territories Available!*



Among the outstanding features are: one-piece  
tank oven, all porcelain with rounded corners,  
easy to clean — ball bearing pull-out broiler —  
smokeless broiler pan — Robertshaw heat control —  
automatic top lighter — low temperature oven  
burner — non-tipping pull-out shelf racks with  
safety stop — roomy utility drawers and a host of  
other new features!

**DALLAS AND TANK**  
**WELDING COMPANY, INC.**  
201-5 W. COMMERCE ST. DALLAS, TEXAS

MAY-1941

# Home Service—A Selling Agent

**A** STUDY of the cooking survey made by the American Gas Association in 1939 should be sufficient proof of a need for more educational work if we would have more people buy more gas and more new appliances, the hope of every sales manager.

No part of the gas company can better qualify for this task than the home service department. Acknowledgment of this fact is evidenced by the greater range of activity being required each year.

It has been said that "Home Service pre-sells, sells, and re-sells." Any program that pre-sells, sells or re-sells is very likely to receive approval and support from the sales department if the cost is in line with results obtained.

My "Pet Hobby" started about three years ago. It has been called: "Cooking Demonstration", "Range Demonstration", "Tough Customer Demonstration", "Show-Me Demonstration", "Proof Demonstration", and possibly other names that I have not heard.

## The Dramatization Angle

Dramatizing cooking has become popular and at this time it seems to be our best way of presenting the new modern gas range. Someone has said, "A sales presentation without demonstration is so much conversation." In our show we have all three: sales presentation, demonstration, and conversation.

"The proof of the pudding is in

● **I. C. McGEE** is Home Service Director for the Seattle Gas Co. He thinks home service is a very essential function of every gas company; that it develops new accounts and saves service costs. He said this, and more, in a paper published herewith that was read before the Pacific Coast Gas Association last year. Liquefied petroleum gas dealers should find many helpful suggestions here to assist them in promoting their own service departments, and to justify the expense of maintaining them—Editor.

the eating", and we like this show because it definitely sells ranges for us. We have held approximately 200 with an attendance of nearly 10,000. We have had groups of all kinds: church groups, women's clubs, political groups, high school pupils, and men's clubs.

A mere man dressed in business clothes, cooking a great deal of food in a short time is unusual and expresses the ease and simplicity of cooking with the modern gas range.

Our competitors have made many misleading statements about the cleanliness of cooking with gas. Correcting the belief in their untruths cannot be done by merely denying it. By actual demonstration, showing that the so-called uncleanliness is caused, in most cases, by the way the fuel is used and not the fuel itself, is much more convincing.

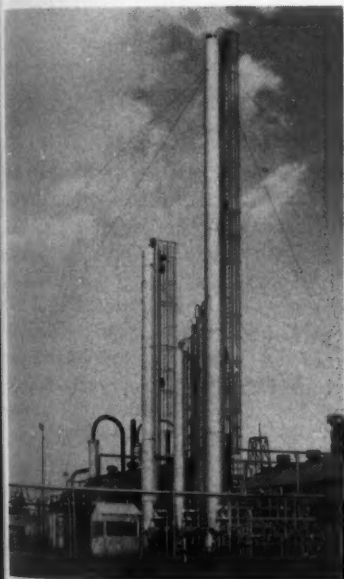
We know that vapor and steam, driven off by excess heat, laden with minerals and mineral oils from

# SINCLAIR

MAKERS OF  
HIGHEST  
QUALITY

## Butane and Propane

Today's Leader  
in Modern Methods



Sinclair Seminole LP-Gas Plant

Sinclair Propane and Butane are manufactured by old experienced hands working with new, modern equipment, and aided by scientific research to insure the finest quality LP-Gas.

You can buy Sinclair Propane and Butane with confidence—for they are backed by a company whose production standards and business policies have made Sinclair products famous.

For A Dependable  
Co-operative  
Source of Supply  
try  
**SINCLAIR**

SINCLAIR BUILDING

TULSA, OKLA.

**SINCLAIR PRAIRIE OIL COMPANY**

MAY 1941

food, pick up dust particles from the air and are the cause of most of the kitchen wall discoloration. With no other fuel can just the right amount of heat be selected so quickly, so conveniently, and so accurately to avoid this condition. No one would hesitate to eat a steak broiled under the open flame. Gas is clean.

### Gas Is Economical

Economy alone will not sell a cooking service, but it will help. Seeing a complete meal cooked over a very small simmering heat tends to offset any thought of gas being expensive. Good results are obtained from using old, unevenly shaped vessels of various sizes, which give further support to our claim of economy of gas as a cooking fuel. No special cooking utensils are necessary. The definite, constant heat for all surface cooking is provided by the new top burners. Our way of saying this is by cooking vegetables in a very small amount of water, frying bacon in a paper plate, and frying chicken in a large black skillet without shifting the pieces. We replaced a heavy aluminum skillet with a black one when we found that many believed the aluminum to be the cause of the even distribution of heat. Frying bacon in a paper plate may have no particular point, but it does arouse interest. No explanation is made, but we hope to convey the idea that it can be done only with the definitely selected and controlled heat of the new simmer burner.

The important requirements of a good oven are: (a) Even distribu-

tion of heat; (b) constant temperature, and (c) insulating insulation.

Four layers of cake, baked at one time and evenly browned without shifting their position is convincing of the fact that there is even distribution of heat in a gas oven. A constant temperature so necessary for the baking of many products is had only in a gas oven. One layer of the cake remaining in the oven for one hour or more overtime, with the heat control still at 350°, attracts attention and usually causes the question to be asked, "Why doesn't it burn?" This gives a good opportunity to explain that the burning point of the cake is slightly above 350° and if the cake does not burn in an hour or one and one-half hours, it surely proves that the temperature did not go above that point.

Competition has used as a sales argument — "Cool Kitchen". Ice cubes wrapped in a comparatively thin layer of the same insulating material as found in any A.G.A. approved gas range oven will not melt noticeably in a 450° oven in 10 or 15 minutes. During this time biscuits are baked to emphasize the fact that the oven is really hot.

### Why Not More Broiling?

And now for the neglected broiling. If broiled food is more healthful, as we are told it is, and we know that gas definitely broils best, why do not more people do more broiling? Some do not know how, some do not want to wash the broiler, others think it will smoke up their kitchen and others claim their family is too small. We cannot do much about the small family, but



INCREASE YOUR L-P GAS  
BUSINESS WITH THIS

*Magic Chef*  
**ALL-AMERICAN**

*Designed with the aid of 615 home economists  
... just what women said they wanted!*

## A roomy family-size range ideal for LP-Gas Territories

**W**HEN a customer wants cooking capacity... plus modern efficiency and convenience, the Magic Chef "All-American" Gas Range is what she needs! Roomy cooking top, extra-size oven and high Swing-out Broiler that does double duty as a barbecue oven and warming compartment. Other new exclusive features. This is just one of many new Magic Chef

Gas Ranges in a wide range of prices. Our Research Laboratory pioneered in developing ranges for greatest efficiency with all types of L-P Gas and other bottled gases. Magic Chef Ranges are backed by widespread national magazine advertising and intensive sales promotion campaign helps. The Magic Chef franchise is still available in some areas. Write now for details.

**THIS COUPON MEANS  
MORE BUSINESS...**

*Send it today!*

AMERICAN STOVE COMPANY, Dept. B-5,  
4301 Perkins Ave., Cleveland, Ohio  
Please send me details of the complete Magic Chef line  
and merchandising helps available.

Name .....

Company .....

City ..... State .....

MAY-1941

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we can do a great deal to overcome the other objections. However, broiling for small families can be done economically and with little effort, particularly if complete meals are planned for this method of cooking.

Broiling to me seems so very simple and I try to emphasize the ease with which it can be done, by broiling fish, a steak, and a complete dinner. Sometimes a steak is purposely burned to demonstrate that the smoke is actually incinerated by the intensely hot flame, and no smoke enters the room.

At these demonstrations, church groups and women's clubs interested in making money are paid 10 cents per person with a maximum of \$10, provided 50 or more attend. The cooked food is also given to them and when sold, \$6 to \$10 is usually realized from the sale. Attendance is counted from cards filled out by each person giving name, address, and kind of appliances used. These cards are turned over to salesmen for "follow up".

Demonstrations are held in our auditorium or any suitable outside place furnished by the club. Most of the high schools have been co-operative and we try to meet with each of them every semester. This is inexpensive inasmuch as nothing is paid for attendance and usually no trucking and installing of equipment is involved. During the winter months, a demonstration is held every Friday afternoon in our auditorium. Most of the attendance here is by invitation from the salesmen and consists of recent purchasers and prospects. It's a

poor day when one or more salesmen does not complete a sale to his prospect attending. One salesman lists seven ranges and two water heaters sold for \$952 over a short period of time. He states, "I think this is the most effective advertising you can do. It does three things: (1) Shows the merchandise in its best light; (2) teaches new methods of cooking, and (3) breaks down resistance." Naturally the salesmen are interested and have asked that the program be continued.

While many appointments are made without solicitation, others are secured from leads obtained from the church directory published each year by the Council of Churches. Leaders of women's groups, whose names are obtained from the directory, are contacted either by telephone or personal call. The salesmen also give us the names of club women in their territory to contact.

The equipment consists of two ranges, one large and one smaller one; one five cubic foot Electrolux; one box of cooking utensils and a large adjustable mirror.

Though the attendance is not large, possibly averaging 75 at each meeting, it is believed that more is achieved than with large groups.



### **New Butane Bulk Storage Plant For Kingsport, Tenn.**

The Kingsport Gas & Electric Co., Kingsport, Tenn., is erecting a new butane bulk storage plant to serve its new customers.

Members of this firm are H. M. Huntsman and S. F. Brading.



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H. M.

E News



**F**REE service can be a millstone around your neck. But when you use Minneapolis-Honeywell Controls you reduce control service calls to the absolute minimum.

- A five year M-H service record study shows that repair costs due to factory defects amounted to less than  $\frac{1}{2}$  cent each for each device shipped. This remarkable record covers hundreds of thousands of instruments of various types and reflects a true picture of service rendered by Minneapolis-Honeywell Controls.

- The Kansas City Gas Co. has more than 30,000 Minneapolis-Honeywell Controls in service more than five years. Only two-tenths of 1% were returned for repairs in one year.

- Surely Minneapolis-Honeywell Controls make free service as light a load as possible . . . Minneapolis-Honeywell Regulator Company, 2776 Fourth Avenue S., Minneapolis, Minn. Canadian Plant: Toronto. European Plant: London. Company owned branches in forty-nine cities.

*This thing can be heavy*  
**KEEP IT LIGHT!**

**STANDARDIZE ON MINNEAPOLIS-HONEYWELL CONTROLS**

*Play Safe!* **USE**

**MINNEAPOLIS-HONEYWELL**  
GAS CONTROL *Systems*

## Water Heater Revisions Are Approved by A.G.A. Committee

At the forty-seventh meeting of the American Gas Association Approval Requirements Committee held on March 21, recommended revisions to American Standard approval requirements for gas water heaters and listing requirements for attachable water heating units were reviewed and approved with minor revisions. Also considered and likewise approved is a tentative set of standards covering gas counter appliances as follows: gas coffee brewers and urns, food and dish warmers, gas waffle bakers, gas-fired hot water immersion sterilizers, and commercial hot plates and griddles. All become effective Jan. 1, 1942. These apply to LP-Gases and butane-air as well as to city gases.

Strengthening of performance tests for automatic pilots forms one of the

principal revisions to current requirements for gas water heaters and attachable water heating units. Tests have been added to assure satisfactory continued performance of such devices for the life of the complete unit. Provision has also been made for assuring rated hydrostatic test pressures for storage vessels of assembled water heaters. These must withstand a hydrostatic test pressure of 300 lbs. per sq. in., or their rated pressure if greater than this amount, without developing leakage or deformation.

### Harry Lea, Lebanon, Tenn., Purchases 1000-Gal. Truck Tank

Harry Lea, Lebanon, Tenn., recently purchased a 1000-gal. butane truck tank to serve the customers in and around his vicinity.

Mr. Lea has just recently entered the butane gas business.



## INVESTIGATE! SPRAGUE No. 9

a NEW, SMALL meter designed specifically for the measurement of L-P Gases. Rugged, made of cast iron, and simplified in construction. Delivers at  $\frac{1}{2}$ " W.C., 60 cu. ft. Propane, 55 cu. ft. Butane.

Write now for Bulletin 23-A

**SPRAGUE METER CO.**

**BRIDGEPORT, CONN.**

DAVENPORT, IOWA • HOUSTON, TEXAS • LOS ANGELES, CAL. • SAN FRANCISCO, CAL. • ST. LOUIS, MO.

# Modern Butane Storage



The WYATT Blimp, pictured above, provides safe, dependable storage for Butane, Propane and other lighter fractions of petroleum. It is 44½ ft. in diameter; 75 ft. high; has a 630,000 gal. capacity; an internal working pressure of 10 lbs. per sq. in. Eight 10'x40' WYATT pressure storage tanks, 25,000 gals. capacity each, are shown.

WYATT builds skid tanks, truck tanks, bulk storage and underground systems for commercial and domestic use in the liquid gas industry.

# WYATT'S

WYATT METAL & BOILER WORKS

HOUSTON AND DALLAS, TEXAS



"It really gets cold in  
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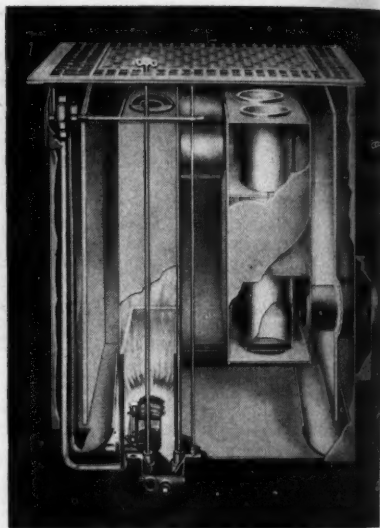
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C. E. Woods, one of rapidly growing thousands of rural folks who keep warm with WARD Floor Furnaces burning LP gases, writes: "*It really gets cold here but our Ward has done a thorough, economical heating job and is worthy of a great deal of praise.*"

WARDS will help boost your appliance sales and profits...and sell your customers on LPG for clean, convenient, thrifty space heating. Our LPG furnaces are our finest...with *all* regular built-in features PLUS 100% SAFETY PILOT that automatically shuts off gas to *both* burner and pilot if flame goes out. Relights as easily as ordinary pilot.

For safety...for service...for profit  
...sell WARD Floor Furnaces!

*May we send you a copy of our  
latest catalog and price list?*



WARD HEATER CO., LOS ANGELES

### EASY TO INSTALL

*No Basement Necessary*

Just drop furnace into  
floor opening, attach  
to vent and gas line  
and the home is yours!

**WARD** *Automatic*  
**L.P.G. FLOOR FURNACE**  
with 100% SAFETY PILOT

# SELLING

## Sell Your Salesmen

Here is a question that is subject to debate: Is it better to train your men from raw recruits or to choose men who got their experience in competitive lines? Some sales managers feel that former competitive salesmen never quite lose their belief in the superiority of the product they once sold. But here's a sales manager who takes the opposite view. His argument follows:

"I have heard it said that a raw recruit is to be preferred to a salesman who got his experience in a competitive line. This preference is based upon the belief that it is more difficult to shake a former competitive man of his feeling of allegiance to the old line—which tends to color his belief in the gas appliance line—than it is to train a raw recruit.

"Perhaps there's merit to this contention, but I should hate to think that I had passed up a chance to save myself much preliminary training work by turning down a man already grounded in selling principles.

"Belief in a product is important and a salesman is never at his best until his enthusiasm for what he sells is spontaneous. It follows, therefore, that if the salesman was successful with the competitive line, he believed it to be the best appliance the homemaker could buy.

"But I contend that if it is not

possible to convince an able man of the superiority of the gas appliance line to the point that his enthusiasm for it supersedes the enthusiasm he felt for the former line, the fault is not with the salesman or the product but with our sales story.

"I have had former competitive men on my force who failed. But they were failures when they came to me. I should look upon it as a failure of my own to allow a man with a successful record in selling to go down in defeat with the gas appliance line.

"It takes a long time to make a salesman and endless months of tedious training. When a man comes to me with those months of initial training already behind him and a proved record in selling, I consider myself fortunate.

"If other sales managers have met with sad experience in taking on former competitive men, I think some of it can be attributed to the salesmen's lack of ability. The mere fact that a man has been known as a salesman for a period of years does not prove ability. It becomes necessary to know the facts.

"And if your story is not sufficiently well organized to sell a man who wants to be sold, perhaps you had better review your sales story and plug up its weak points rather than throw up your hands in despair of bringing former competitive men to your way of thinking."

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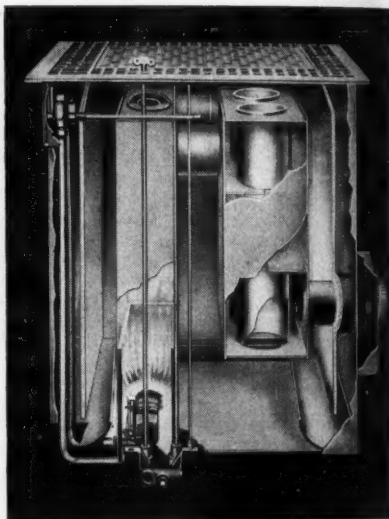
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## DOTTED LINE ROSCOE ... by Bob Crosby



**"With Junior using gas—why not try for  
the industrial rate?"**

# "Never The Twain Shall Meet"

(Reprinted from "American Business")

What the Sales Manager Thinks	What the Salesman Thinks	The Probable Truth
He is a price man. Always complaining that our prices are too high. If prices were as low as he wants, we'd need no salesmen.	People are price-minded today. The house can't expect me to hypnotize buyers into paying us a big premium just because we are well known.	If both the sales manager and the salesman forgot prices and thought more about VALUE there would be less difficulty.
He is just calling on old customers, many of them established before he went on the territory. Guess we need a new man in his place.	I can't take time to go on wild goose chases after a lot of small prospects. It takes all my time taking care of established trade.	Extra quota credit for new accounts, or a slight bonus, would win the salesman's attention to new accounts. Or his territory may be too big.
He is spending too much money. We will put a stop to his habit of living in \$4.00 rooms every place he goes.	The house doesn't want me to be a cheap skate. I think a salesman is entitled to the best the road affords.	A manual which carefully outlined expense allowances and showed the salesman why it is to his advantage to travel economically is needed.
He has hit a dead level and his sales have shown little increase in three years while his sales cost has gone up each year.	It has been two years since I had a raise. I am stymied with this job. The house thinks it has a rope around my neck. I am going to demand a raise.	A tentative raise subject to an immediate reduction in sales costs might wake up the salesman to do better.
Half a dozen other salesmen want his territory and have asked to be transferred to it if we make a change. He has gone stale.	This is the most forsaken territory in the country. The sales manager has it in for me. That's why he sent me to this sales Siberia.	The most natural thing on earth is for a salesman to think his territory is poor. Show him what other men think of their territories.
His quota is too low. We have men in undeveloped territories with lower quotas. He is a small time man, with small ideas, and is not sold on our line.	They must take my quota figures from passing box car numbers. I'll bet there isn't another man on the force in such a small territory with a quota as big.	If the sales manager showed how carefully the quota is figured and let him know more about other men's quotas, he would be ashamed to complain.
The last time I visited him he had left half his samples at home. How can he want new items when he fails to show the old ones?	Every buyer in my territory is sick and tired of looking at these old items. I wish the house would wake up and turn out some snappy new numbers.	More sales information to show how others are selling old items would help this salesman realize that many old items are the best sellers.



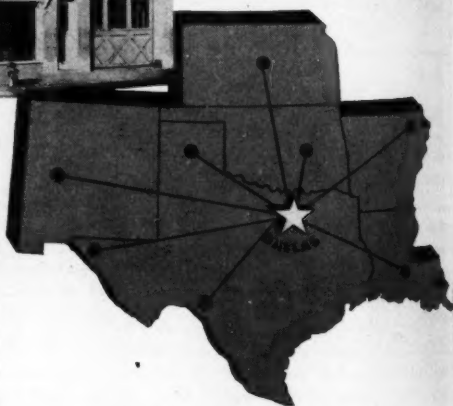
### ENSIGN DALLAS FACTORY BRANCH

Over 90% of American-made multi-cylinder gas engines are equipped with ENSIGN Natural Gas Carburetion. Butane, an exceptional motor fuel for oil well drilling, servicing and transportation, employs approximately the same carburetion plus the ENSIGN Vaporizer and fuel Filter.

ENSIGN pioneered carburetion for both Natural Gas and Butane, and through its sales and service departments and an extensive dealer organization, every essential to satisfactory engine performance is made available.

Eight years ago, ENSIGN selected Dallas for the location of its Southwestern Factory Branch—the central point for distribution in the Mid-Continent area.

## Ensign's MID-CONTINENT HEADQUARTERS



From Dallas radiate our lines of sales and service activities from New Mexico to Louisiana—from Nebraska to the Gulf. Experienced engineers cooperate with operators and engine builders in solving power problems.

Complete stocks of ENSIGN carburetors for Natural Gas, Butane or a combination of these fuels, are available at 900 South Ervay Street, Dallas. Your inspection of this ENSIGN Branch, the Chicago Branch, or the factory in Huntington Park, California, is cordially invited.

# ENSIGN

## CARBURETOR CO., LTD.

HUNTINGTON PARK, CALIF. • DALLAS, TEXAS • CHICAGO, ILL.



# BUTANE *Power*

## **Automotive Engineers Discuss Butane**

The tractor and power exhibition of the Southern California Chapter of the Society of Automotive Engineers was held at the Elks' Temple, Los Angeles, April 11-12 under the general direction of E. W. Templin, Society chairman, with Oscar W. Sjogren acting as technical chairman.

James McKnight, of the school of mechanic arts, University of California at Los Angeles, delivered a paper entitled, "Application of Butane to Tractor and Power Engines." In the discussion of the subject that followed, points touched upon included manifolding, top cylinder lubrication, and type of oil to be used in top cylinder lubrication.

## **Charles W. Carter Co. Becomes Roadmaster Representative**

Announcement was recently made by R. B. McConlogue, vice president of Roadmaster Products Co., Los Angeles, that the Charles W. Carter Co., of San Francisco, will be distributor for Roadmaster carburetors for all territory in California north of the Fresno county line.

The Carter Co. has been active in the automotive and truck field for many years in northern and central California. A large and complete stock of Roadmaster carburetion equipment will be available in San Francisco, Oakland, Sacramento and Fresno, making possible much faster service for Roadmaster customers

throughout this territory. Glen Gunderson will be in direct charge of all sales and service of butane equipment for the Carter Co.

The Chicago office of the company is now actively pushing butane conversions.

## **New Collection Method For Kansas Taxes**

A bill intended to net Kansas \$500,000 to \$1,000,000 additional taxes a year by requiring motor vehicle users of butane, propane to be licensed has been introduced in the Kansas state senate. The proposal would collect the present three-cent-per-gallon tax directly from companies using liquid gases and distillates in diesel engine trucks and other specially adapted vehicles.

The tax now is collected by fuel distributors in the same manner as the tax on gasoline and officials say it is difficult for distributors to determine when to collect the tax.

## **Parkhill-Wade Opens Branch Office Near Fresno, Calif.**

The Fresno, Calif., branch of Parkhill-Wade was opened April 1 at 312 North H St. The new location is one mile north of the Fresno city hall on Highway 99.

Gilbert Woodill, sales manager for the company, with offices in Los Angeles, states that the new branch will carry a full line of Parkhill-Wade LP-Gas equipment. The stock will include Fisher regulators, Goodrich LP-Gas hose, F and E burners and torches,

I.C.C. tanks, full line of heaters, Humphrey gas lights and fixtures, Kerotest and Selwyn valves and fittings, Imperial copper tube fittings, and other lines.

The new branch was opened to serve the inland territory from Sacramento to Bakersfield and the coastal section from Santa Maria to San Jose. Wm. Bonner and Henry Haar are now operating the Fresno offices. Both have had considerable experience in the LP-Gas field.

### **American Liquid Gas Corp. Opens Branch in Chicago**

A new factory branch of the American Liquid Gas Corp., of Los Angeles, has been opened in Chicago, according to William Conzelman, general manager of the organization.

Fred LaFrentz, who is in charge of the new office, is a factory engineer and has been associated with the company for some time. The Chicago branch has been opened in order to serve Midwest and Eastern customers.

### **One Texas Company Serves 150 Irrigation Plants**

Plains Farm Gas Co., of Canyon, Texas, of which C. B. Leggett is owner, has been operating for about 3 years, during which time it has established service in connection with approximately 150 irrigation wells which pump water for irrigation purposes. Almost all makes of engines are in service at these wells.

Frank Jackson, of the company, is shown in the picture on this page, as he takes departure of W. W. Banks, Dallas Tank & Welding Co., Inc., Dallas, with four more 1000-gallon tanks to be installed for irrigation service in and around Umbarger, Texas. The company also serves approximately 450 domestic butane systems located in eight counties near Canyon. A branch office is maintained in Clarendon, Texas.

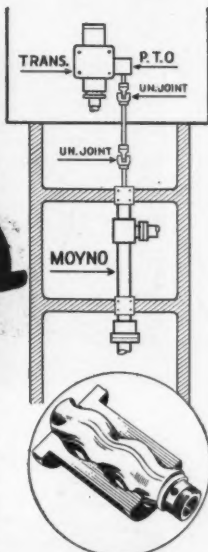
"The biggest factor in operating a successful butane business," states Mr. Jackson, "is being honest and fair with customers."



Four 1000-gal. tanks bound for Texas irrigation projects of the Plains Farm Gas Co. W. W. Banks (left) says "good luck" to Frank Jackson as the latter leaves for Umbarger, Texas.

# Fits the Truck and the Job

## L.P.G. MOYNO PUMP



● Out of sight but giving plenty of satisfactory service is the L. P. G. Moyno Pump used for filling underground storage tanks and bottle containers by the Southern Gas and Electric Corp., Bradenton, Fla. Diagram shows method of installation. The truck tank was designed and built and the pump installed by Hamler Boiler & Tank Co., Chicago.

Sectional view of Rotor and Stator

● OCCUPYING a minimum of space, weighing slightly more than 100 lbs., the L. P. G. Moyno Pump fits your truck tank as an integral part of the chassis. It dispenses butane and propane safely . . . uniformly . . . without vapor locking . . . into underground storage tanks or bottle containers. Investigate the advantages of L. P. G. Moyno Pumps for your butane and propane pumping requirements today. Ask for Moyno Pump Folder No. 1771.

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MOYNO PUMP DIVISION



SPRINGFIELD, OHIO

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SINCE '28 HAS LED IN  
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## PAYNEHEAT

MORE THAN A QUARTER-CENTURY OF
GAS
SPECIALIZATION

Payne Furnace & Supply Co., Inc., Beverly Hills, California

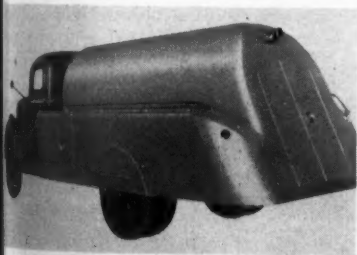
# PRODUCTS

## Transport Tank

*Butane Equipment Co., Inc., 3301 South Lamar, Dallas, Texas.*

*Model: Super - De - Luxe Butane or Propane Transport.*

*Description:* This butane or propane transport has all of the valves in the end of the tank which eliminates necessity of climbing up on the cat walks to empty or fill the tank. A large compartment is concealed at rear of truck. This serves as a convenient storage space for tire, hose, tools, etc. A side compartment of the truck provides adequate space for a meter or additional hose. The smooth finish of the skirting of this model is obtained by applying hot lead and sanding the surface. The tank and skirting is available either for installation on customer's chassis or customer may purchase chassis f.o.b. Dallas.



## Gas Range

*The Moore Corp., Joliet, Ill.*

*Model: "Milady" No. 401.*

*Description:* This new, modern gas range has white porcelain finish; high and low broilers; smokeless rack-type and Astogrill broilers;



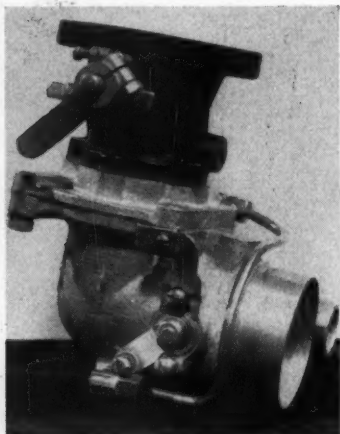
double-duty top burners with giant and regular size burners; top burners with hi-low valves; automatic heat control; ball bearing, easy glide service drawers; slide-out broiler with drop front door; spacious storage compartments; non-tilt oven racks; flush-to-wall construction; large, roomy, 17-in. oven; full folding cover tops; conventional, center and divided cooking tops. Shipping weight, 303 lbs.

## Butane Carburetor

*Pyramid Equipment and Sales Co., P. O. Box 704, Huntington Park, Calif.*

*Description:* The Pyramid elbow type carburetor is for tractor and other power units and is a new development in butane carburetion. The lower section shown is the Model No. 100 air-horn adapter used with various sizes of adapter plates to replace the air-horns furnished on

many two-piece, original equipment, gasoline carburetors, converting the unit for use with LP-Gas instead of gasoline. It can be connected in any one of four positions to facilitate proper air-cleaner and throttle lever connections.



### Hand Truck

*Thomas Truck & Caster Co., Mississippi River & K St., Keokuk, Iowa.*  
Model: No. 77.

*Description:* This truck is a one-man hand truck for moving both cylinders and appliances. Constructed of light weight tubular steel. Weight, 23 lbs. Cradle constructed to accommodate any size cylinder up to 100 lbs. capacity. Larger sizes can be secured on special order giving dimensions desired. Wide flanges at bottom over wheels give perfect support for moving



appliances. Can be equipped with a web strap for securing appliances to truck body. Ten-inch cushion pneumatic tires are filled with sponge rubber, preventing damage to lawns. Sponge rubber filler eliminates punctures, necessity of checking air pressure in tires. Rounded handle grips and center skid permits one man to skid appliances or cylinders from delivery truck without damage.

### Commercial Range

*The Malleable Steel Range Mfg. Co., South Bend, Ind.*

Model: No. 262.

*Description:* A moderate priced range for the smaller restaurant, lunch room, dining car, tea room, diet kitchen, etc. Streamlined in design. Built of rust-resisting, satin-finish steel; high shelf with invisible brackets; flush body front, heavily insulated, deep oven; large pot compartment; patented burners with aluminum alloy burner heads; low cost heat control; top burner lighters; super-insulated, flush type doors with tension roller bearing counter balances.



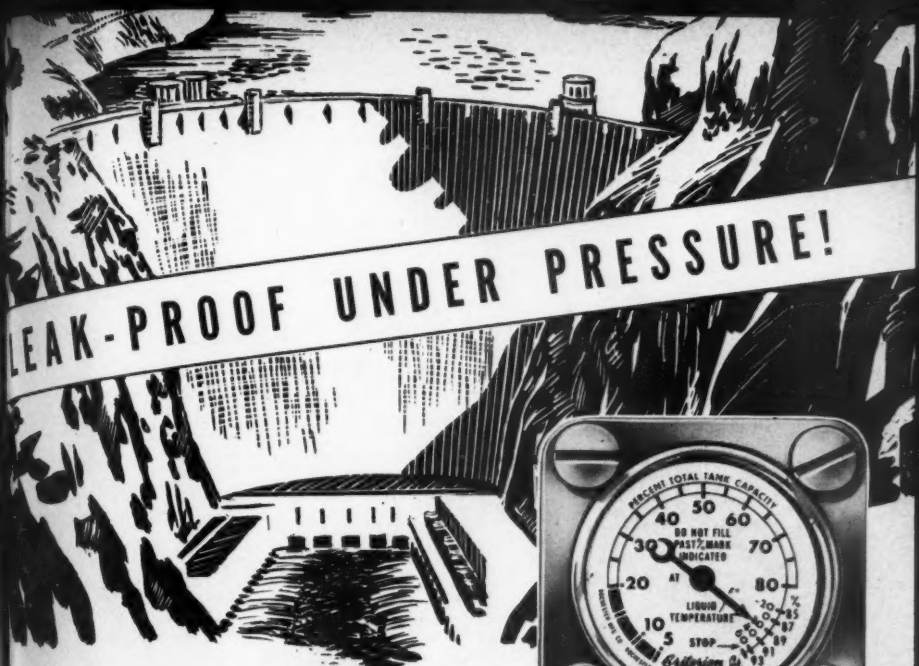
**BUTANE-PROPANE News**



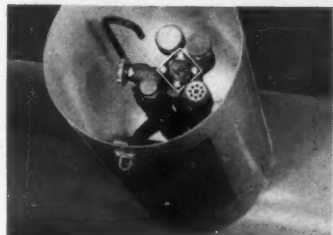
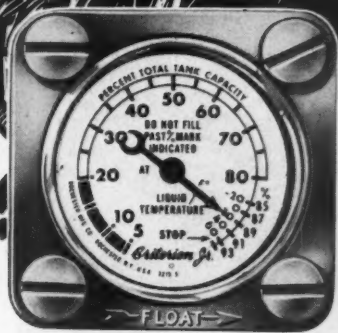
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Just as the mighty Boulder Dam is specifically designed and built to withstand tremendous water pressure, so are Rochester Criterion Gauges specifically designed and built to withstand up to 2000 lbs. pressure. Thus does the *Patented Leak-Proof* construction of these accurate, dependable Gauges provide that *extra factor of safety* so essential in the handling of liquefied petroleum products. Thousands of installations prove they're right! Listed as Standard by Underwriters Laboratories. For use in above-ground and under-ground systems, also in I.C.C. and ASME Cylinders.



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Write Today For Complete Information on These Low-Cost Instruments



**2BP PRESSURE GAUGE** for accurately registering inside tank pressure. Designed for heavy-duty service where gauges may be exposed to dust and water. Every moving part of Gauge mechanism is made of long-wearing metals.

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THERE'S A NEW 1941

# Grand

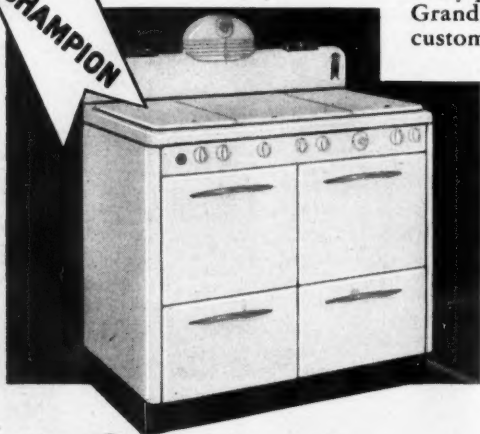
FOR EVERY PURSE



#### SAFE-TEE-KEE

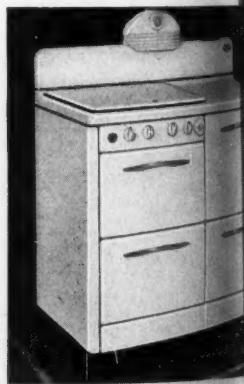
An exclusive Grand  
Selling feature — safe-  
guards home and family.

Whether your customer is strictly price minded—or demands the finest range she can buy—there's a Grand Gas Range that will give her exactly what she wants. Grand's 1941 line includes a model every purse and every purpose... there's a Grand that has everything at the price every customer wants to pay.



## THE *Grand* CHAMPION

From its exclusive Master Top Lamp, to its flush-to-floor base, the Champion offers dozens of exclusive sales-making features available in no other range. No finer range at any price. Model No. R-10.

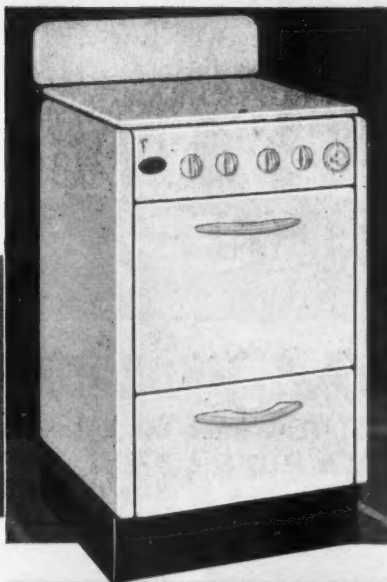


## CONVENTIONAL TOP MODEL

40-inch cooking top with 18-inch work space. Giant 4-burner. 18-inch oven. Exclusive Master Lamp and Timer.

## GRAND COOKER MODEL R-11

A completely insulated 22-inch cooker with extra roomy cooking top, 18-inch oven, and smokeless type broiler.



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## PEEK-A-BOO MODEL R-65

The Peek-A-Boo Oven and Oven Light highlight this feature-packed, divided top model. A best-seller wherever the Peek-A-Boo Oven is in demand. →



## DIVIDED TOP MODEL R-8

← Extra big, extra roomy. Full 40 inches wide. Large 18-inch oven. Built flush-to-wall and flush-to-floor.



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MAY

# RESEARCH

**Friction-Heads in Standard Six-Inch Pipe**—F. E. Giesecke and J. S. Hopper. *Heating, Piping and Air Conditioning*, Feb., 1941, pp. 115-122. In order to obtain friction heads for pipe of the larger sizes used in forced circulation hot water systems a new series of tests on standard 6-in. black pipe was inaugurated. The use of screwed couplings, welded joints and elbows was studied, and the results showed that friction heads in couplings and in well fabricated welds can be neglected in friction head calculations. A method using a welded elbow as a flow meter is outlined and the investigation indicated the necessity of additional research to determine the effect of water temperature and the effect of incrustation resulting from corrosion on the friction head in pipes and fittings.

**Fuel Rating—Its Relation to Engine Performance**—A. M. Rothrock. *Society of Automotive Engineers Journal*, Feb., 1941, pp. 51-65. This paper presents an analysis of the physical principles involved in knock and pre-ignition as an approach to the solution of the problem of fuel rating. From this examination, the author proceeds to an analysis of the manner in which the different engine operating conditions affect these factors which cause knock and pre-ignition. Finally, he investigates the extent to which present methods of rating fuels are in accord with the analysis made in order to recommend the lines that future research should take so that knock and pre-ignition can be understood better and so that fuels can be rated more adequately.

Among the conclusions reached are that knocking characteristics of a fuel cannot be expressed adequately by a single value—that knock depends upon the interrelation of two factors, end-gas density and end-gas temperature; and that, for this reason, variation of actual service values from the laboratory value is unavoidable if a single knock rating is to be used. The paper emphasizes that pre-ignition and knock must be considered separately and points out the difficulties encountered in attempting to express both characteristics by a single method of fuel rating.

**Gasoline Plant Processes Gas from Four Zones**—L. A. Boyd. *Petroleum Engineer*, Feb., 1941, pp. 33, etc. Compression-absorption plant at Warren Petroleum Corp. in Salem field, Ill., is designed for 20,000,000 cu. ft. of gas per day. Flow sheet of the plant is shown.

**Wide Variety of Products Recovered in Warren's New Illinois Gasoline Plant**—H. W. Harts. *Oil and Gas Journal*, Feb. 20, 1941, pp. 64, etc. The largest new gasoline plant to be placed in operation for many months and capable of recovering propane, butane and isobutane as commercial products along with the 18-lb. or 26-lb. natural gasoline is described by the principal supervisor of construction and operation.

**Power Alcohol: History and Analysis.** Published December, 1940, by the Committee on Motor Fuels of the American Petroleum Institute.

**Octane-Rating Trend Continues Upward**—W. T. Ziegenhain. *Oil and Gas Journal*, Feb. 13, 1941, pp. 22, 23. This year The Oil and Gas Journal's annual survey of motor-fuel quality reflects a continuation of improvement of quality among all three standard grades. Uniformity of distillation range and the absence of humps and valleys in the respective distillation curves characterize this year's results. Octane values strike a new high average for each of the three standard grades.

**The Role of Multicolumn Fractionation in the Natural Gasoline Industry**—F. D. Parker. *California Oil World*, 2nd Feb., 1941, pp. 19-26. Part 1. This paper discusses the role that multicolumn fractionation plays in the preparation of essentially pure components, or narrow boiling cuts, from natural gasoline. By multicolumn fractionation is meant the separation by distillation of components or cuts in a series of fractionating towers so integrated in one operation that one or all of the products from one tower comprises the feed or feeds to other towers in the series.

**Close Fractionation Obtained With Stedman Packed Towers**—L. B. Bragg. *National Petroleum News*, Feb. 5, 1941, pp. R34-R40. Fractionating columns packed with Stedman shaped-wire-cloth type packings are believed to offer a better combination of operating characteristics for close fractionation in all except a few special applications. Performance of several different types of tower packing are compared, making use of published data, which so far is confined to the performance of columns of laboratory size. In recent tests mixtures of benzene and ethylene dichloride were employed at total reflux and atmospheric pressure in columns up

to 12 inches in diameter. Stedman packings have been developed in plain conical cell and triangular pyramid grid types, usually employing 40 x 60 mesh cloth with 0.009-inch diameter stainless steel wire. The first type is made in three diameters (2, 3, and 6 inches) and one triangular shape with 6-inch sides. This packing material seems to be the only one offering a large number of theoretical plates per foot of height in the larger diameters.

**Toluene, a Critical Material.** F. C. Croxton and R. Shutt. *Chemical Industries*, Jan., 1941, pp. 16-20. Although United States toluene production is approximately 5,000,000 gals. over World War output, defense officials are calling for more and the petroleum industry is being called on to meet this vital requirement. Authors briefly discuss some of the methods for the manufacture of this material from petroleum.

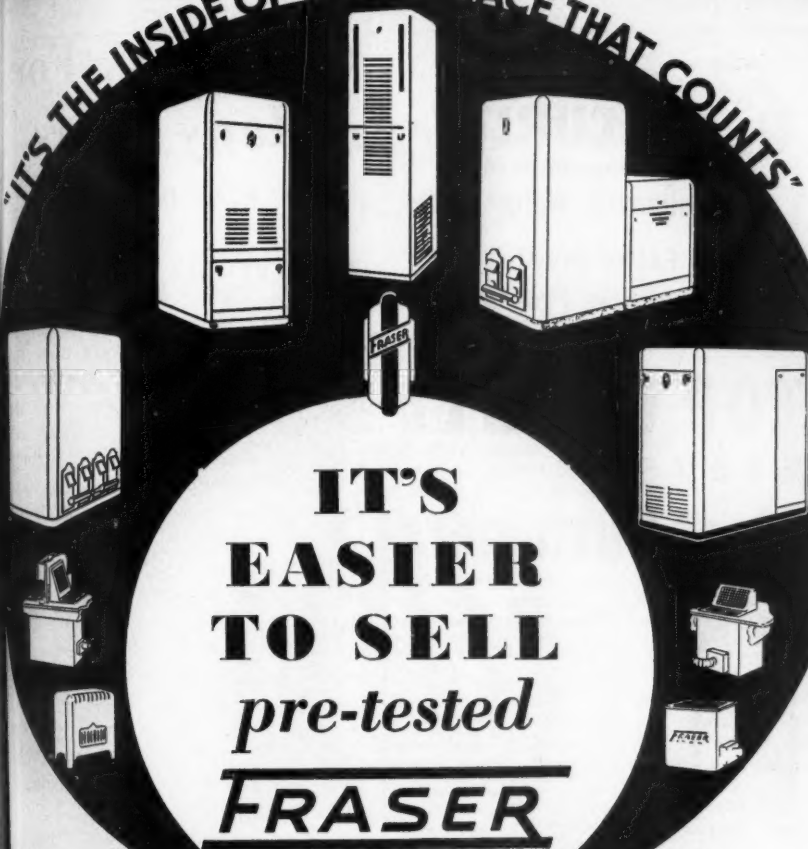
**Standards of the National Board of Fire Underwriters for the Installation of Air Conditioning, Warm Air Heating, Air Cooling and Ventilating Systems.** N.F.B.U. Pamphlet No. 90, October, 1940.

**Elements of Vaporization and Condensation**—R. L. Huntington. *Refiner*, Jan., 1941, pp. 62-65. Part 10. Fractionation of multi-component mixtures and application of McCabe-Thiele diagram to complex mixtures.

● **BUTANE-PROPANE** *News* wishes to keep its readers informed regarding technical and practical advances concerning research, manufacture, development, and transportation in the liquefied petroleum gas field. In this column will be found a resume of recently published articles, papers, bulletins and books dealing with the industry's various phases.—Editor.



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FRASER**

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 Kansas City, Missouri

**SECURITY**  
**GAS-FIRED PRODUCTS**



**The "Long-Life" LINE**

## One Tank For Many Users

By O. D. HALL

**T**HE Brisben Furniture Co., Enid, Okla., which added LP-Gas equipment and appliances to its stock only two years ago, has made a success in this line by selling the safety, convenience, and economy features of butane and propane gases to many farmers and small town residents of Garfield county who live beyond the natural gas mains.

"If LP-Gas dealers can prosper and acquire satisfied customers in that section of northwestern Oklahoma, they can do business and grow almost anywhere, for Garfield county is in the heart of a section that has many natural gas wells and gas distributing facilities," stated a company official in discussing the subject.

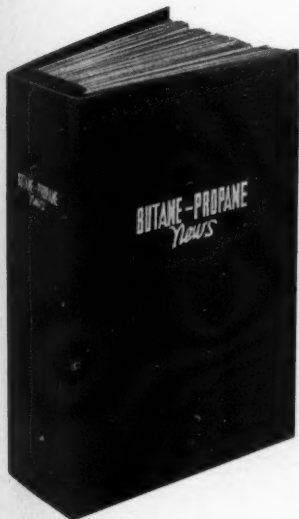
No effort is being made by the Brisben Furniture Co. to compete with the natural gas companies in its territory. This is not necessary, for even in this thickly populated and rich wheat growing section of Oklahoma thousands of people are not within reach of any existing natural gas lines.

Not only are many farmers in the section receiving LP-Gas service from the Brisben company and other firms in the territory selling butane and propane equipment and appliances, but the conveniences of these modern fuels is

BUTANE-PROPANE  
*News*

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BUTANE-PROPANE  
*News*

1709 West Eighth Street

Los Angeles, California

being extended to the small rural communities.

For example, in November last year, the Brisben Furniture Co. installed a 500-gallon butane tank at Meno, Okla., about 15 miles west of Enid on U. S. Highway 60. This tank gives service to a drug store, a residence and tourist camp owned and operated by Olin Becker. Connected to the tank are a floor furnace, a kitchen stove, two hot water heaters, three bath room stoves and two space heaters.

John Brisben, who has operated his furniture store in Enid for 20 years recommends 500-gallon tanks for most butane installations for rural or town household use because larger tanks give more space inside for vaporization, reduce the hazard of overloading and provide

more tank surface to contact the warmth of the ground, which also promotes better vaporization, especially in cold weather.

Several methods employed by the Brisben Furniture Co. to get new customers for LP-Gas equipment and appliances were explained by R. E. Yates, store salesman, and Earl Garren, outside salesman and serviceman. The first aim is to establish at least one satisfied user in each community and then to arrange with the customer to permit use of his home for demonstration purposes. In addition at least one salaried salesman is kept in the field and arrangements are made with a number of salesmen for furniture and hardware wholesalers, to sell LP-Gas systems and appliances on a commission basis.

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GAS  
EQUIPMENT**

EXCLUSIVE AGENTS FOR:

**GENERAL STEEL TANK CO.**  
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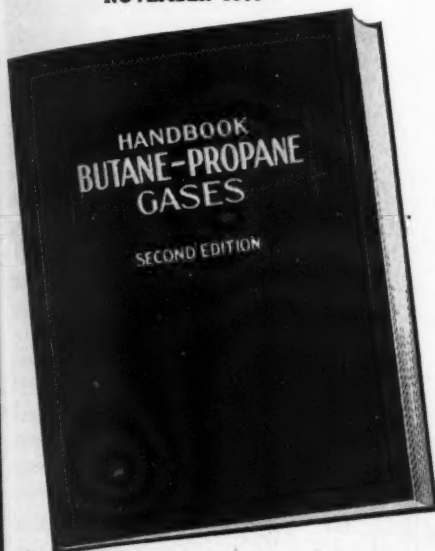
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We Work with You  
When You Market**

# Skellyfuel

From our own experience in selling Skellyfuel, we have learned a lot of valuable things about how to do the job *profitably*.

Our experience is *yours* when you market Skellyfuel — which means you *don't* have to learn the angles of this specialized field the hard way.

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**SKELLY OIL COMPANY**

Tulsa, Oklahoma

Kansas City, Mo.

## Added Lines Boost Sales

**T**HE success of the Lorensen Butane Service, owned and operated by Fred N. Lorensen, at Los Banos, Calif., is active proof that an LP-Gas dealer can expand his market to include many applications of the fuel if he will take the time and make the effort to do so.

Mr. Lorensen began business on a small scale two years ago. Most of his installations were domestic, each consisting of a small tank and the required domestic appliances. Since that time the business has been widened to include all types of domestic and commercial installations as well as some industrial applications. Customers have been induced to supplant their small bottles, or tanks, with large tanks and to use butane for many additional purposes.

Mr. Lorensen is now making conversions for the use of butane on trucks and tractors for the farmers in the Los Banos area. This department has grown rapidly, he states, and is now an important part of his business. The sale of this mobile equipment has been made possible directly through the success of his domestic installations, he claims. The farmers have become familiar with butane, are sold on it, and want to use it wherever it is practicable—which is almost every place on the farm. Another type of installation that



# Sell Speed

with a

## SPARTAN

A water heater built for today's requirements: speed in recovery (55.9 gals. per hour)—efficient—noiseless—attractive—safe. Every dealer needs the SPARTAN to make his line complete. Write for details.

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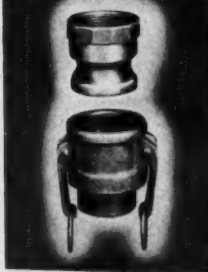
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QUICK COUPLING UNITS



### Tight Connections! No Threads! SPEED — SAFETY — ECONOMY

Ever-Tite Couplings have proven invaluable wherever connections are made—at bulk plants, on tank cars, for truck deliveries and on storage tanks. They offer years of trouble-free service and are designed for pressures to 3000 lbs. in sizes from 1/4 in. to 8 in.

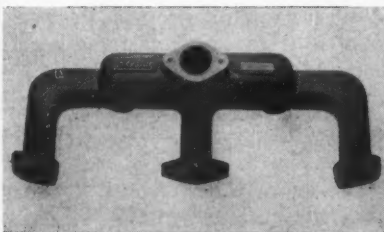
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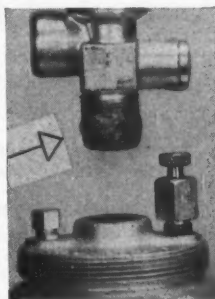
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• Butane manifolds will remove hot spots and restrictions found in standard gasoline type. Made for International, G.M.C., Ford V-8, Chevrolet and Dodge. Features: extremely cold type, large area, even distribution.

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• Here, at last, is a sealing compound that will seal tank and cylinder valves for LPG use. Bu-Seal sets without permanent hardening; valves once set, may be removed (without damage); is not soluble in water, oil or gas.

*We carry a complete stock of Pressed Steel I.C.C. Cylinders for immediate delivery, also tank fittings, regulators, pigtails, gauges.*

## ELECTRIC AND CARBURETOR ENGINEERING CO.

*"Pioneer of the Butane Industry"*

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Los Angeles

is growing in importance is the butane plant used for dairy sterilization. Mr. Lorensen estimates that about nine-tenths of his customers have dairies and all of them could use butane for this purpose. Many who have profited from LP-Gas in their homes are now using it with great satisfaction in their dairies.

Besides being much cleaner and more convenient to use than the oil they burned previously, butane is far more economical. In most cases the cost of butane for dairy sterilization is less than half that required for oil, Mr. Lorensen states.

Other farm uses of LP-Gas reported by Mr. Lorensen include chicken brooding and weed burn-

ing, both of which are increasing rapidly in importance.

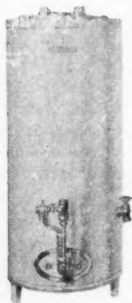
To handle his increasing sales of butane Mr. Lorensen recently installed a new 8000-gal. storage tank. The dispensing unit, including a new Smith Precision pump and a Brodie meter, is equipped to handle butane at a rapid rate for both trucks and domestic tanks. A metered delivery truck has also been added for farm deliveries.

### Butane Gas & Appliance Co. Buys Truck For New Business

A. Knoblaugh, general manager, Butane Gas & Appliance Co., Jackson, Ala., recently purchased a 1000-gal. truck tank to serve his customers around Jackson.

This is a recently organized firm.

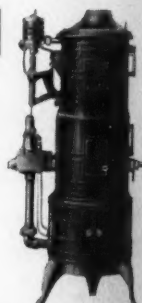
## Step Ahead With Pittsburg In The Liquefied Gas Field!



### *The Favorite Everywhere!*

Famous Pittsburg Water Heaters are profit-builders from beginning to end! And every one is designed and tested to give efficient, economical, long life service with Liquefied Petroleum Gas! 1941 models are trim, dependable and sales-appealing!

Learn about the advantages of handling an established name! Send for FREE complete line Pittsburg folder . . . today!



**The PITTSBURGH WATER HEATER CORP.**  
PITTSBURGH, PENNSYLVANIA



## STABILIZED BUTANE

We make wholesale deliveries by  
Transport, Tank Car or from one  
of our Bulk Plants.

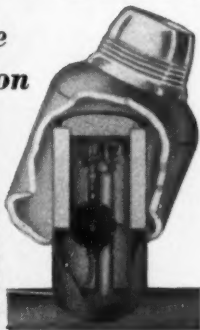
Exclusive Distributors  
**SMITH STEEL TANK CO.**  
Manufacturers of A.S.M.E. code tanks

For further details write or wire

**R. J. ALLISON CO.**  
P. O. Box 23 TULSA, OKLA.

## OPPORTUNITY

*for those  
in position  
to ACT  
NOW!*



If you are an aggressive, responsible merchandiser, we offer you a licensing arrangement that will enable you to contract with a local tank manufacturer to build Pioneer Insulated Butane Systems for you. This effects substantial freight savings, and places you and your dealers handling this popular plant in a very advantageous position. Write for complete details, today.

**EWING BUTANE GAS CO.**  
Dallas, Texas

## BIGGER PROFITS! BU-PRO-FIRE

LPG HEATING EQUIPMENT



A complete line of heaters and floor furnaces designed especially for approved LP gases. Finished in Porcelain Enamel and approved by A.G.A.



WRITE FOR COMPLETE  
CATALOG AND PRICES

**TENNESSEE ENAMEL MFG.CO.**  
NASHVILLE, TENNESSEE

## Arizona Federal Prison Uses Butane for Fuel

Butane is now being used for fuel at the United States Federal prison at Tucson, Ariz.

A central butane plant, with a storage of 2500 gals., supplies fuel through pipes to the 10 large units, where it is used for cooking, water heating, and space heating. Butane, Ltd., of Los Angeles, recently completed the job.

## Foresters and Fire Wardens Convene At Ventura, Calif.

About 150 men interested in developments in fire fighting methods attended the twelfth annual convention of the Southern California Association of Foresters and Fire Wardens at Ventura, Calif., April 4-5.

The control of butane fires was

given an important place on the program, with a lecture and demonstration under the supervision of David F. Glines, California supervisor of fire training, at which fog nozzles, Du-Gas and C-O-Two fire equipment were used.

On the large fires it was shown that with the proper application of water, crude oil could be made to froth, causing self-extinguishment.

## Hydro-Gas Co. Locates In Falfurrias, Texas

The Hydro-Gas Co., of Corpus Christi, Texas, has opened a branch in Falfurrias, Texas, it was announced recently. The new company is located on Highway 281 in that city. E. V. Neumann, formerly of Corpus Christi, will be located in Falfurrias permanently to manage the branch.

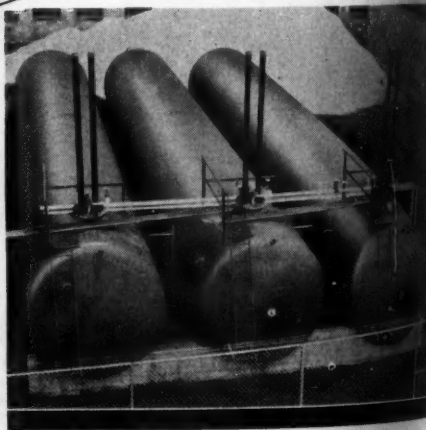
Consult—

**DOWNINGTOWN IRON WORKS**  
**DOWNINGTOWN, PA.**  
**WELDED and RIVETED PRODUCTS**

for **PROPANE  
TANKS**

● ● The proper design and fabrication of Tanks for Propane Storage is dependent upon the knowledge and experience of the fabricators. MUCH DEPENDS UPON THEIR SPECIFICATIONS FOR MATERIALS AND THEIR CHOICE OF PROCEDURE FOR HANDLING THEM. Because Downingtown has had considerable experience in building tanks for this service, we do know the answers to those basic problems. Let us help you with yours.

● Tanks shown at right were fabricated by Downingtown.



# FISHER TYPE 712 REGULATOR



FOR SINGLE DRUM  
APPLICATION

- \*Die Cast Body
- \*Capacity — 25 Cu. Ft. Per Hour or More
- \*Built in Relief Valve

Write for Prices

Fisher Governor Co.  
Marshalltown, Iowa

# McNAMAR *Tanks*

- TRUCK TANKS
- TRANSPORTS
- SKID TANKS
- STORAGE TANKS
- UNDERGROUND SYSTEMS

All tanks ASME U-69, inspected by  
Ocean Accident & Guarantee Corp., Ltd

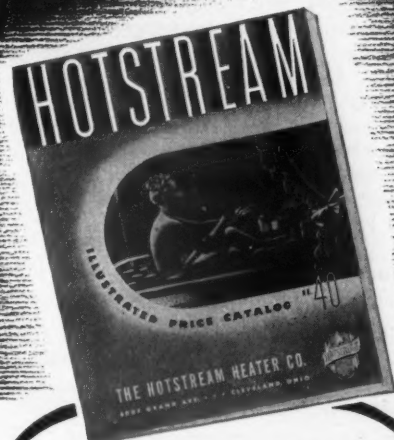
# McNAMAR

BOILER AND TANK COMPANY

Tulsa, Oklahoma

Salem, Illinois

# Water Heating?

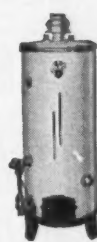


**HOTSTREAM 41 CATALOG**  
*gives you the complete*  
**"True Story"!**

## 57 Styles and Sizes Designed for L.P.G.

Make the most of your L.P.G. trade by including Water Heating with the services you offer... Make the most of Water Heating by handling Hotstream—the most complete line—with 57 styles and sizes specially built for safe, efficient, economical operation with Liquefied Petroleum gases.

Write for descriptive catalog giving you the complete "True Story"



# THE HOTSTREAM HEATER COMPANY

8007 Grand Avenue • Cleveland, Ohio

## Rheem Manufacturing Elects L. B. Keplinger Vice President

Livingston B. Keplinger was elected vice president and director of Rheem Manufacturing Co., in March. Mr. Keplinger will continue his post as assistant to the president, R. S. Rheem, with headquarters in the New York executive offices.

At the same time, the company announced the appointment of Clifford V. Coons, formerly manager of the Houston, Texas, plant, as sales manager of its container division, also to be located in New York.

## Industrial Uses of Gas Will Be Discussed

Latest developments of gas as used industrially in the heat treating of metals will be in evidence when the Western Metal Congress and Expo-

sition is held in Los Angeles May 19-23.

The meeting will be presented by the American Society for Metals in the Biltmore hotel and Pan-Pacific Auditorium, in co-operation with 19 other technical societies, including California Gas and Oil Association, Pacific Coast Gas Association and western chapters of the Liquefied Petroleum Gas Association. The exposition will be held in the auditorium.

## LP-Gas To Be Used At U. S. Bombing Range Field

A liquefied petroleum gas plant is under construction at Muroc dry lake bombing range, located near Mojave, Calif.

The contract for installation was awarded to Charles J. Dorfman, of Los Angeles, for \$7089.



# HIGHLIGHTS!

## FOR YOUR 1941 HEATER CAMPAIGN

WRITE . . PHONE . . WIRE now for your BRILLIANT FIRE franchise. Insure the success of your 1941 Season with this fast-selling, profit making line of modern heating appliances. New designs . . novel features. Selling and finance plan provided. Pre-season low prices with fall billing now offered franchised dealers. Write for new G-41 Catalog.

Attend the L.P.G.A. Southern Section Meetings at the Roosevelt Hotel, New Orleans . . . April 28th and 29th

Since 1846  
**BRILLIANT  
FIRE**



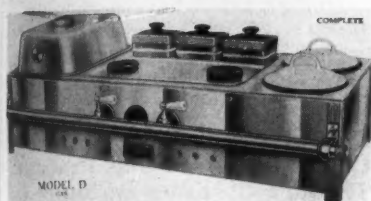
# Gas Heaters

NATURAL • MFRD • BUTANE • PROPANE

THE OHIO FOUNDRY & MFG. COMPANY  
STUEBENVILLE ~ ~ ~ OHIO, U.S.A.



## PROFITS



### MEXIHOT BARBECUE HAMBURGER MACHINES

Thousands of installations in drug stores, tap rooms, roadside stands, cafes and other places that serve lunches have brought big repeat business. Low price means quick sale. Above model \$38.50, other sizes in proportion. Write for distributorship at once.

Department B 10  
DICKERSON MANUFACTURING CO.  
Springfield, Missouri

## THOMAS TRUCK of Keokuk

### DOUBLE-DUTY HAND TRUCK

FOR

#### Cylinders

The New  
One Man  
Truck

Cradle makes  
cylinder  
handling  
easy. Bot-  
tom flanges  
support ap-  
pliances.



NO. 77

#### Appliances

Price  
Only

**\$12.95**

(1 1/2" Weld-  
ing strap—  
\$1.50 addi-  
tional) larger  
sizes slightly  
higher.

10 inch, ball bearing, puncture proof cushion pneu-  
matic tires prevent damage to lawns—provide easier  
rolling on hard surfaces. Order your DOUBLE-DUTY  
NO. 77 today.

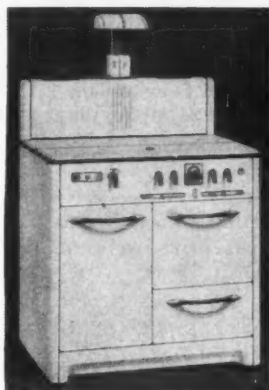
## THOMAS TRUCK and CASTER CO.

4132 Mississippi River

Keokuk, Ia.

MAY-1941

# WEDGEWOOD L.P.G. RANGES



F  
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A  
T  
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R  
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SPEED—PLUS—SIMMER  
★ BURNERS ★

All  
Burners  
Self  
Lighting



Avoids Excess Heat • Eliminates Boil-  
overs • Preserves Food Nutritional  
Value • Saves Time, Effort, Food and  
Fuel.

# WEDGEWOOD

THE MODERN RANGE

James Graham Mfg. Co.

Los Angeles, San Francisco, Newark  
California • Portland, Oregon

## Pittsburgh Equitable Meter Co. Acquires National Meter Co.

President W. F. Rockwell, of Pittsburgh Equitable Meter Co., Pittsburgh, Pa., has announced the purchase of the assets of the National Meter Co., of Brooklyn, N. Y., thereby bringing together under one management the facilities of two of the country's important meter manufacturers. The National Meter plant will be operated as a division of the Pittsburgh Equitable Meter Co.

## Old Gas Plant Comes Down In Chillicothe, Missouri

The old gas plant of the Missouri Public Service Co., in Chillicothe, Mo., was torn down in February, thus eliminating a land mark that for 45 years served Chillicothe with manufactured gas.

Two years ago the former method

was supplanted by the establishment of a butane-air gas plant which since that time has been serving 570 B.t.u. gas to local residents.

Storage tanks have a capacity of 35,000 cu. ft. and from these the gas is distributed directly into the mains.

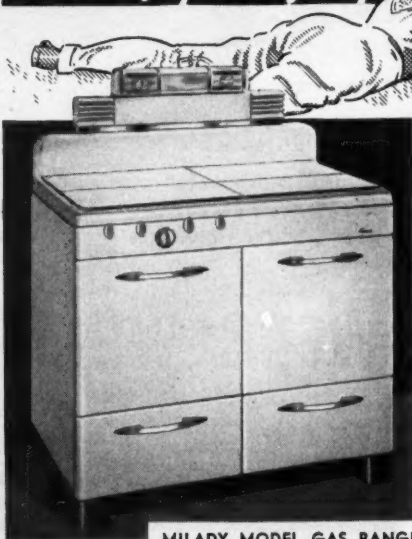
T. L. Cruse is manager of the Chillicothe plant.

## Coffeyville, Kan. Gets Propane Through Brighton Furniture Co.

The Brighton Furniture Co., located in Coffeyville, Kan., has recently taken the agency for propane gas and will engage in its distribution in Coffeyville and the surrounding rural district.

According to Robert H. Brighton, manager of the firm, the gas department of the business will be called the Bright-Gas Co., and will handle appliances as well as the fuel.

## The Right Range



MILADY MODEL GAS RANGE



MOORE RANGES give you a complete line for LPG, including Gas Ranges—Combinations and Bungalow models. Backed by Moore's reputation for quality. Meet every modern cooking requirement with MOORE'S, which means more satisfied customers for you.

**THE MOORE CORPORATION**  
JOLIET, ILLINOIS

*You Get More in a* **MOORE**  
Quality Since 1857

**BUTANE-PROPANE** News

*For Safety  
and Economy*

## ETHYL MERCAPTAN

—Purified—

The **ACCEPTED**  
standard  
odorant  
for liquefied  
petroleum  
gases.

**MALLINCKRODT  
CHEMICAL WORKS**

ST. LOUIS

NEW YORK

### Mr. Butane Dealer!

**YOUR CUSTOMER  
IS YOUR BEST FRIEND**

He is entitled not only to your best service, but also to the finest equipment modern science and engineering has produced. By universal acclaim of dealers and users, the finest Butane Gas System is the

**NATIONAL  
Thermo-Syphon  
SYSTEM**

which is making happy users by rendering greater efficiency and economy, and happy dealers by providing more profit and less service expense.

*Ask any Thermo-Syphon dealer,  
then communicate with*

**National Butane Gas Co.**  
MEMPHIS, TENNESSEE

## ARMSTRONG HEATERS

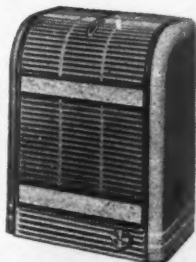
### The 4-Star Line

- ★ **QUALITY**
- ★ **EYE APPEAL**
- ★ **LOW PRICE**
- ★ **REDUCED SERVICE CALLS**

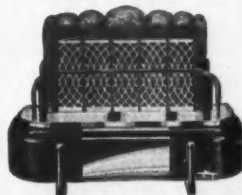
Four reasons why dealers are finding Armstrong Heaters such big sellers and such good profit makers.

### 900 Radiant Circulator

A real beauty in design and finish. An exclusive Armstrong feature is a clay heating element that produces both radiant and circulating heat. No gas odors. Finished in rich brown porcelain enamel and non-finishable chrome. 3 sizes, 14,000, 18,000 and 28,000 B.T.U. A.G.A. approval.



### 790 Radiant Heater



A popular seller. Body finished in brown vitreous enamel with heavy chrome hearth, front panel, dress guards and tubular legs. Glazed backwall is light tan shaded with brown. Light faced radiants harmonize with body. 2 sizes, 20,000 and 24,000 B.T.U. A.G.A. approval.

20,000 and 24,000 B.T.U. A.G.A. approval.

### 11 DIFFERENT STYLES

In the complete Armstrong line, there are 11 styles especially designed for liquefied petroleum gases—every one a big value—sized from 12,000 to 30,000 B.T.U. Finishes harmonize with any home or office surroundings.

Send for illustrated literature and attractive dealer discounts. Address Dept. BP.

**ARMSTRONG PRODUCTS CORP.**

Quality Appliances Since 1899  
HUNTINGTON, W. VA.

MAY-1941

109

## New LP-Gas Company Enters Tulsa, Okla.

A new Tulsa, Okla., business is the Northeastern Oklahoma Liquefied Gas Co., recently chartered by the state as a \$10,000 corporation, to sell propane gas and appliances for its use in heating and cooking. Mark S. Patton is president, and H. J. Porter, vice president and sales manager.

The company will have sales agents throughout northeast Oklahoma. Bulk plants will be installed and domestic equipment carried. Bottled gas also will be sold.

## Bulk Plant to be Erected In Pierce, Nebraska

Using gas transported from Kansas, a gas bottling bulk plant is soon to be erected in Pierce, Neb. To be the wholesale filling point of the Farmer's Union Co-Operatives

throughout Nebraska, bottled gas will be retailed from this bulk plant throughout a 20-mile radius of Pierce. The tanks will be placed aboveground and a loading dock and building equipped to fill cylinders will also be constructed. Frank Allen, associated with the Farmer's Union Exchange for the past two years, will operate the plant. R. J. Benedict is to be in charge of retail sales.

## Philgas Agency Remodeled

Paulson & Snyder, who have the agency in Windom, Minn., for Philgas products, have recently made extensive improvements in their office and display room. Handling a full line of farm implements, also, this firm is planning upon an intensive sales campaign this spring to make an LP-Gas installation every place where farm equipment is sold.

# TAPPAN'S TEL-U-SET PROVES POTENT SALES FEATURE FOR L.P. GAS DEALERS!

**Joins established TAPPAN advantages in promoting sales . . . upping profits!**

The new Tel-U-Set which combines The Visiguide\* and The Visiminder is the '41 selling sensation.

Tappan's 60th Anniversary line is backed by the biggest advertising campaign and finest selling helps in Tappan's history.

Write today for information to The Tappan Stove Co., Mansfield, O.

## TAPPAN

\* Registered Trade Mark

*Gas Range*

**Increase your L. P. GAS Sales**



gas  
plant  
erce.  
round  
lding  
so be  
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range  
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be in

The  
**CARTER  
OIL COMPANY**

Tulsa, Oklahoma

**Manufacturers  
and  
Suppliers**

of dehydrated

**PROPANE and BUTANE**

for the distributing and industrial  
trade. Shipping points: Seminole,  
Oklahoma; Stonewall, Oklahoma, and  
St. Elmo, Illinois.

Address inquiries to:

**Marketing Department**

**Room 928, National Bank**

**of Tulsa Building**

**Tulsa, Oklahoma**

NT  
RS!

**CROWN GAS RANGES for LIQUEFIED GAS**



**FOR REAL SALES ACTION**  
Concentrate on the Crown Line. There are  
17 models to choose from . . . in a price  
range within the means of all. Backed by  
34 years of stove manufacturing.  
Write for catalog

**CROWN STOVE WORKS**

**4631 W. 12th PLACE, CHICAGO**

Manufacturers of BUFFET and DIVIDED-TOP GAS RANGES

**WARREN'S**  
**Butane - Propane  
Twins**



**Offer You . . .**

HIGHEST QUALITY LP-Gas, manufac-  
tured under rigid specifications, in our  
own natural gasoline plants. You can  
interpret Warren Quality in terms of  
PLUS quantity. The tests of our own  
expert chemists are checked periodically  
by nationally known petroleum inspectors.

NO COMPETITION for our customers.  
We are not distributors or dealers. Our  
job is to manufacture the finest quality  
Propane and Butane that the natural  
gasoline industry can make.

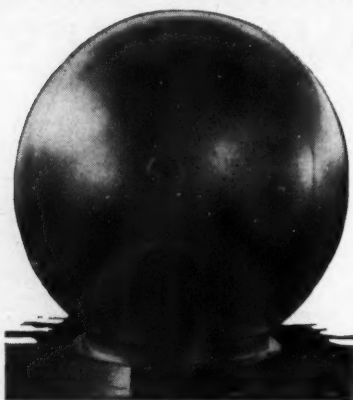
QUICK, EFFICIENT SERVICE and speedy  
delivery—always.

*Wire or write*

**WARREN  
PETROLEUM CORP.**

Manufacturers and Wholesalers

**Tulsa, Okla.**



## High Pressure TANKS for EVERY PURPOSE

American high-pressure tanks are made by skilled craftsmen, long experienced in specialized tank manufacture. American is fully equipped to plan, design, fabricate, and erect any type of surface, underground, mobile or portable equipment for the storage or transportation of liquefied petroleum gases. Consult American first — preliminary consultation involves no obligation.

# AMERICAN

Pipe & Steel Corporation  
Manufacturers and Distributors  
Alhambra California

## Ewing Butane Gas Co. Exhibits At Southwestern Exposition

For the second consecutive year the Ewing Butane Gas Co., of Dallas, of which Robert Ewing is owner and operator, has exhibited at the Southwestern Exposition and Fat Stock Show, a 10 day affair, held in Fort Worth, Texas. The 1941 show, which closed on March 16, attracted an all-time high attendance in the 45 year



W. D. Mathews, Ewing Butane Gas Co., Dallas, demonstrates butane equipment to a visitor at Texas fair.

history of the show, with 375,000 people entering the turnstiles.

W. D. Mathews, of the company, is demonstrating in the picture on this page the "Pioneer" insulated head, an exclusive feature, to Mrs. A. V. Jenkins of Houston. A full line of LP-Gas household appliances was included.

## Thickstun Manifolds Are Now Manufactured in Los Angeles

The Electric and Carburetor Engineering Co. is now manufacturing Thickstun manifolds at its headquarters, 2323 E. 8 St., Los Angeles. This carburetor is manufactured for both the butane and gasoline trade.

Thomas Thickstun will be in charge of this division.

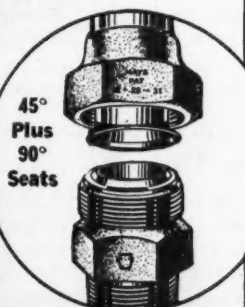


## Only DOUBLE SEALS

have two seats of contact ( $45^\circ + 90^\circ$ ). Any good pair of hands can make a DOUBLE SEAL connection. Only a saw, knife, flanging tool and wrench are required. Write for catalog that tells complete story.

MORE  
THAN  
400  
STYLES  
AND  
SIZES  
1/4" TO 2"

Approved By  
Underwriters'  
Laboratories  
for L-P Gas  
Piping.



HAYS MFG. CO., Erie, Pa.

## ROBERTSHAW MANUALS

will help increase your sales

### FOR DOMESTIC SALESMEN

"More Income from Gas Ranges"

How can your salesmen sell more gas ranges? This manual shows simply, graphically, convincingly. Thousands of salesmen have greeted it with enthusiasm, are putting it to effective use.



### FOR COMMERCIAL SALESMEN

"Hidden Losses in Your Kitchen and How to Stop Them"

The latest developments in commercial gas cooking equipment are brought together in this manual, now used by many bottled gas dealers.



Write for free copies

ROBERTSHAW THERMOSTAT COMPANY  
YOUNGWOOD, PA.

# Now!

## DOUBLE-DUTY RANGE



2-OVEN COMBINATION  
FOR COAL, WOOD, OIL AND GAS

IT'S the Round Oak Hiawatha ... actually two complete ranges in one! Opens rich rural and suburban markets. Offers new opportunities for greater sales and profits, too.

### GAS RANGES—6 Types

Round Oak also offers six types of outstanding gas ranges, designed to meet every need, priced to fit every budget ... all factory-built and adjusted for tank or bottled gas. Write for complete facts today!



The Cheyenne gas range  
— a Round Oak leader.



## ROUND OAK

of Dowagiac, Mich.

STOVES • RANGES • FURNACES • OIL  
BURNERS • AIR CONDITIONERS • STOKERS

Round Oak Co., Dowagiac, Mich. Dept. BP-5  
Send me the facts on Round Oak ranges today!

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

## Arkansas Butane Dealers Incorporate Their Association

A petition asking incorporation of the Arkansas Butane Dealers Association, organized to develop the liquefied petroleum gas industry, was granted by Second Division circuit court in Little Rock, Ark., Feb. 24.

The petition said the association would work for proper legal regulation of the industry and to establish a fair practices code.

Association headquarters will be in Little Rock. Incorporators included H. P. Riley, of Pine Bluff, head of the Riley Butane Gas Co. and president of the Association.

## New Ironcase Meter Booklet Tells of Latest Advances

American Meter Co.'s revised new Catalog EG-40 on Metric-American Ironcase Meters gives a comprehensive

report on developments in these types of low and high pressure meters for all requirements and exigencies of present-day service.

The facts are based not only upon engineering activities and tests, but also on a large cross-section of approved installations in the field.

A copy of this illustrated booklet may be had by addressing the publication office of American Meter Co., at 60 E. 42nd St., New York City, or the office of the company nearest you.

## New Company Formed In Washington

Recently incorporated for the purpose of engaging in the liquefied petroleum gas business was the Butane Engineering Co. of Walla Walla, Wash. The incorporators were John W. Phalen, Harold Gray and Pat T. Phalen.

The capitalization is \$20,000.

**Cuts  
Costs**

**Increases  
Power**



## THE CARBURETOR THAT MAKES BUTANE REALLY FLEXIBLE!

**G**ET THE INTERESTING FACTS TODAY. Learn how Roadmaster has increased power and cut operating and maintenance costs for large fleet operators, municipalities, contractors, farm operators and industrial concerns.

Designed by Holzapfel, creator of the first successful Butane Carburetor. Made for trucks, buses, tractors, and stationary engines. FREE 8-page book "POWER" mailed on request, without obligation. Send for your copy today.

## ROADMASTER PRODUCTS COMPANY

2316 S. FLOWER, LOS ANGELES

2236 S. WABASH, CHICAGO

# HANSON BUTANE TANKS

C.I.A.C. A.P.I.-A.S.M.E. A.S.M.E.

DOMESTIC  
STORAGE  
TRANSPORT  
TRACTOR  
MOBILE

SKID

CODE HEADS—8" to 60" incl.

Manufacturers of

HANSON REDHEAD  
Butane Carburetors

## ROY E. HANSON

Manufacturing Mechanical Engineer

1924 Compton Ave. Los Angeles

★ A BETTER VALVE  
AT ANY COST ★

GENERAL CONTROLS TYPE K-3B VALVE  
FOR MOST ALL GAS CONTROL  
APPLICATIONS



PROVED FOR  
LIQUEFIED  
PETROLEUM GASES

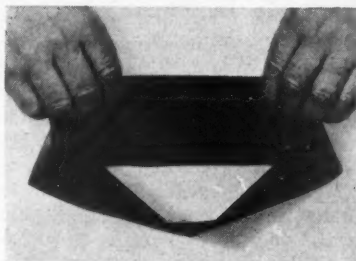
Before You Buy—Compare  
These 10 Outstanding  
Advantages

1. Quiet AC Solenoids.
2. Two-wire current-failure principle.
3. Designed to eliminate magnetic sticking.
4. Rotatable conduit connection.
5. Interchangeable coils.
6. Bonnet construction for accessibility.
7. Minimum number of working parts.
8. Reduced current consumption.
9. Impact action stainless steel plunger.
10. Widest range in sizes,  $\frac{1}{2}$ " to 6".

WRITE FOR 1941 CATALOG

### GENERAL CONTROLS

450 E. Ohio St. Chicago, Ill. 267 5th Avenue New York City  
Distributors and Stocks in All Principal Cities



Seams in Vulcan Diaphragm Loops are vulcanized, not stitched, and are permanently leak-proof.

## VULCAN DIAPHRAGMS

This amazing technical development by the Vulcan Laboratory is helping to solve many LPG meter and regulator problems.

Vulcan Diaphragms are accurate in thickness, uniform, and permanently flexible. No oiling necessary... consequently no shrinking or stretching.

A wholly manufactured product, not dependent on the vagaries of nature.

Write for information.

Vulcan Proofing Company  
First Avenue and Fifty-eighth Street  
Brooklyn, New York

# VULCAN

NON-LEATHER  
LPG  
METER and REGULATOR  
DIAPHRAGMS

MAY-1941

115

## Daniel J. Schoenberger Dies Suddenly In Florida

Daniel J. Schoenberger, vice president of the W. J. Schoenberger Co., of Cleveland, Ohio, brass valve and fittings manufacturers, died suddenly from a heart attack April 4, at Miami Beach, Fla. He was 53 years of age.

Mr. Schoenberger, a native Clevelander, joined his brother, William J., in the manufacturing business there in 1920. He served overseas with the United States army in the World War.

## Arkansas LP-Gas Law Amended To Broaden Authority

The Arkansas state butane law has been amended to give the Department of Labor greater authority to regulate the use of liquefied petroleum gas in Arkansas. The highlights of the amendment are: The bond has been

increased from \$1000 to \$5000. Those entering the business in Arkansas must show that they qualify in the handling and use of LP-Gas through an examining board set up by the Department of Labor.

Complete analysis of the LP-Gas must be submitted to the State Department and approved. This is to prevent excessive vapor pressures in low working pressure vessels.

## New Bottling Plant For Tyndall, S. D.

The Tyndall Hardware Co., Tyndall, S. D., has recently completed the installation of an LP-Gas bottling plant, according to J. W. Flamming, manager of the company.

Transport trucks will now bring the gas direct from the oil fields to the bulk plant and the refilling of customers' bottles will be made locally.

# DEPENDABLE EQUIPMENT AND QUICKER SERVICE



Distributors for

**Bastain-Blessing Co.**

★

**L. C. Roney, Inc.**

★

**Hackney ICC  
Cylinders**

Equipment that will make lasting friends and better profits for you. Our speedy service gets this dependable equipment to you quicker, too.

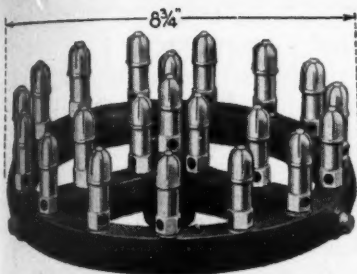
Will see you at the LPG Association Convention, Southern Section, New Orleans, Louisiana, April 28-29

**GAS EQUIPMENT CO., INC.**

2620 S. ERVAY ST., DALLAS, TEXAS

**GAS EQUIPMENT SUPPLY CO.**

1157 W. PEACHTREE ST., ATLANTA, GA.



No. C 210 Barber Burner

## BARBER APPLIANCE BURNERS

For every appliance, there is a Barber Burner unit with proper jets, and correctly designed, to suit the combustion requirements of Butane or Propane Gas, and to fit the appliance itself. Eliminate servicing and back firing. Every distributor of these fuels, as well as appliance builders, can best serve their customers by recommending the use of genuine Barber Burners. Submit your burner problems to us. Write for Catalog showing complete Barber line.

**THE BARBER GAS BURNER CO.**

3704 Superior Ave.

Cleveland, Ohio

## In the MIDDLEWEST

Consider

## PETER FISH INDUSTRIES

Incorporated

for

CENTURY CARBURETORS  
LEONARD SPARK PLUGS  
SELWYN FITTINGS  
F & E TORCHES  
MARVEL OILERS  
TOKHEIM DISPENSERS  
LP-GAS TRUCK TANKS

plus

**Engineering Service**

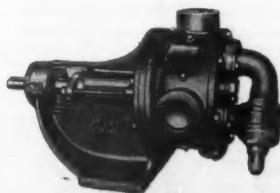
612 N. MICHIGAN AVE.

**CHICAGO**

Write for dealership

# OUR BUSINESS IS MAKING YOUR BUSINESS SAFER!

Every feature of the Viking Butane-Propane Pump is a safety feature . . . an extra long stuffing box is filled with additional rings of leak resistant packing—the head is equipped with special treated gaskets—the flexible casing is easily turned to meet piping, giving a neater, tighter installation. Inside and out, Viking is built for greater safety. Bulletin 2301-40 explains in detail each Viking safety feature —gives detailed specifications on all Viking Butane-Propane models. Write for a copy.



**VIKING PUMP  
COMPANY**  
CEDAR FALLS, IOWA

**A COW** ↘



↙ **THIS IS  
NO BULL**

How would you like to handle a butane system that is ahead of any other system in the field—one that's out of cut-throat competition, and permits you to make a good profit rather than just a sale! Well, here it is—the Utility All-Weather Butane System—with new and distinctive advantages that no one else can match. The one big feature, which will interest you, is the fact it **does not require costly servicing**. Yes, you can make a legitimate profit with the Utility All-Weather Butane System. Why not write at once—and get full details!

The only Butane System guaranteed to operate satisfactorily in extremely cold climates. Saves up to 25% on initial cost.

**AVAILABLE**—Franchises for excellent territory to responsible dealers.

**Butane**

**EQUIPMENT CO. INC.**

Manufacturers

PHONE 4-3146 3101 S. LAMAR

DALLAS, TEXAS

## **Thermogas Dealers Hold Convention**

Dealers of the Des Moines, Iowa, office of the Thermogas Co., Inc., met April 6 at Hotel Fort Des Moines.

Rufus W. Scott, president, conducted the meeting, which was attended by about 350 dealers from Iowa, Minnesota, South Dakota, Nebraska and Missouri.

Speakers during the sessions included F. M. Pain, General Water Heater Corp., Dallas, Texas; Gene McDonald, regional sales manager, Servel, Inc., Evansville, Ind.; Robert Dieckleman, vice president, Pressed Steel Tank Co., Milwaukee, Wis.; A. L. Rose, sales promotion manager, The Moore Corp., Joliet, Ill.; Katherine Kratoska, director, Thermogas home service department; and Walter Christopherson, vice president, Thermogas Co., Inc. H. A. Goodwin, The Bastian-Blessing Co., Chicago, spoke at the banquet.

## **Not LP-Gas, But Containers, Subject to Export Licensing**

Liquefied petroleum gases, including butane and propane, are not subject to the export licensing regulations, but containers for the same, with a capacity of 30 gallons or more, are subject to the export licensing regulations, according to the division of controls of the U. S. Department of State.

## **Reliance Issues New Bulletins**

Five new bulletins on gas regulators have been issued by Reliance Regulator Corp., Alhambra, Calif. No. 37-A covers new developments in pilot types; Nos. 38-B and 41-B show improvements in regulators for house or service installations; No. 48-A presents high pressure regulators, and No. 40-A introduces new models for the control of LP-Gases.

**BUTANE-PROPANE News**



# SALESMEN

at long last

## THE BUTANE-PROPANE PRIMER

is now off the press

**\$1 per copy**

It's complete too and chock-ful of PROVEN Selling Ideas and Sales Methods.

*Write for yours.*

**LPG INSTITUTE OF LOUISIANA**

P. O. BOX 537

LAFAYETTE, LA.

## ROYAL ROSE and AUTOMATIC POPULAR PRICE RANGE

Designed for economy and durability. Meets the demand for a substantial lower priced range to establish L.P.G. consumers.



**AUTOMATIC RANGE CORP.**

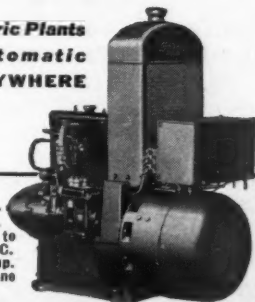
Division of J. ROSE & CO., INC.  
25 WEST 29th ST. NEW YORK, N. Y.

# DEALERS!

## SALES OPPORTUNITY!

**Dealer Franchise Available!**

**Kohler Electric Plants  
supply automatic  
current ANYWHERE**



1500 watts—  
110-volt A.C.  
Others, 800 up to  
10,000 watts, A.C.  
or D.C. \$235 up.  
Operate on butane  
or propane.

**FULLY** automatic — self-starting, self-stopping — easily installed — sturdy, compact, quiet, efficient. Ample current for lights, pump, radio, small tools. In use at camps, on farms, ranches, on shipboard—at many points beyond regular power lines. Also essential for emergency service at hospitals, theaters, etc., when city current fails. Many styles, sizes, prices. *Investigate—*



**KOHLER OF KOHLER  
ELECTRIC PLANTS**

**Planned Plumbing and Heating**

Kohler Co. Dept. BP-5 Kohler, Wis.  
Please send facts about Kohler  
Plants and dealership.

Name \_\_\_\_\_

Address \_\_\_\_\_

## Pacific Heating Exposition To Be Held June 16-20

San Francisco has been selected for the 1941 Pacific Heating & Air Conditioning Exposition, to be held in the municipal auditorium June 16-20. It will be under the auspices of the American Society of Heating & Ventilating Engineers and will afford the West Coast an opportunity to view the important advances in indoor climate control for human comfort and industrial protection.

## Scaife Co. Issues Handy Bottled Gas-Electric Chart

For those who are concerned with electric competition and desire to know the theoretical prices at which LP-Gas and electricity must sell to provide the fuel user with the same amount of service for an equal amount of cost, Scaife Co., Oakmont, Pa., has

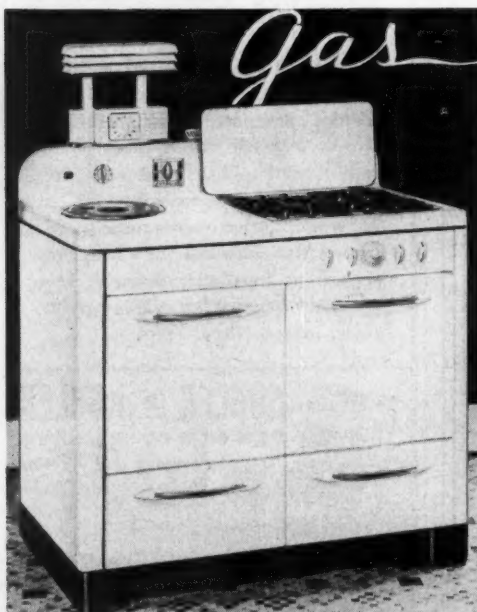
issued a chart that gives at a glance comparative figures and percentages.

The chart, available to those in the industry upon request, shows a price range of from one cent to five cents per kilowatt hour for electricity, and from 3.6 cents to 18 cents per pound for LP-Gas.

## Western Butane Co. Buys Gilroy, Calif., Company

The Western Butane Co. has purchased the Bandy Oil and Supply Co. business which has been operating in Gilroy, Calif. The sale was consummated on Feb. 24.

In reality this is a consolidation and the consumers served formerly by both companies will now have the advantage of the combined facilities resulting from the sale, according to Frank Serafin, manager of the Bandy Oil and Supply Co.

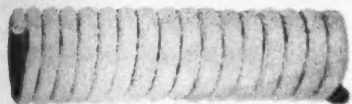


## PLUS Electricity

The Cavalier range with built-in budget cooker offers the advantages of low-cost, deep-well, electric cooking, as well as the speed, convenience and economy of gas. 110 volts, no special wiring required. Extra-thick oven insulation keeps kitchens cooler. Builds up long-time goodwill for LPG. Write today for information on this handsome, economical, double-duty Cavalier.



## LEAKS STOPPED



### CORKENPAK

*Use This Nonsoluble, Self-Lubricating, Extruded, "Live", Semi-Plastic Packing*

Made Especially for Handling

All Light Hydrocarbons

One pound packs five or more

Standard Rotary Pumps

Costs \$3.00 Pound

*Guaranteed to Satisfy You*

Equipment Suppliers—Territory Open

Write for Dealer Proposal

**Corken Pump & Machinery Co.**

206 E. Grand

Oklahoma City

# COMPLETE FACILITIES

## BUTANE OR PROPANE

Vitally important to every retail marketer of these products, is a dependable and reliable source of supply. Such assurance is yours when you buy Philgas Butane or Propane. Without qualification, Philgas has the most complete production, storage and shipping facilities in the industry. Philgas service gives you high-quality products produced according to rigid specifications plus deliveries when, where, and as you want them.

**Philgas**  
DEPARTMENT

**PHILLIPS PETROLEUM COMPANY**  
GENERAL MOTORS BUILDING  
DETROIT, MICHIGAN

NEW YORK

PHILADELPHIA

CHICAGO

MILWAUKEE

ST. LOUIS

AMARILLO

BARTLESVILLE, OKLA.

THE NATION'S LARGEST MARKETER  
OF LIQUEFIED PETROLEUM GASES

## "HEAT WAVE" WATER HEATERS

Designed for  
L.P.G. Industry

The "Heat Trap" flue, an exclusive patented Day and Night feature, guarantees economical, trouble-free operation, long life and complete customer satisfaction; available in three models—nine sizes.

Write for specifications and prices.



**DAY & NIGHT MFG. CO.**

Monrovia

California

# There's the Answer

The  
**SMITH**  
Butane-  
Propane  
PUMP

TO YOUR difficult dis-  
pensing problems such as:

- ✓ Packing Box Leaks
- ✓ Slow Delivery
- ✓ Inadequate Pressure
- ✓ Shut Down Delays
- ✓ Excessive Repair



Check the cost of troubles with your present pump. Compare these costs with that of operating a Smith Butane-Propane Pump—there's a real difference. Smith Pumps are especially designed for Butane-Propane service, and eliminate dispensing troubles.

Satisfied customers everywhere are sending in repeat orders. Investigate Smith Pumps today. Literature on request.

**SMITH PRECISION PRODUCTS CO.**  
1135 Mission St. So. Pasadena, Calif.

## **SMITH** BUTANE-PROPANE PUMPS

### **Oklahoma Fire Marshal May Direct Regulations**

Regulation of the installation of equipment and appliances for use with liquefied petroleum gas would be transferred from the State corporation commission to the State fire marshal, if H. B. 390, introduced in the Oklahoma legislature, March 19, becomes a law. The bill is pending in the House oil and gas committee.

The present law vests authority to make rules and regulation for greater safety in handling LP-Gas and installing equipment and appliances, in the hands of the corporation commission, but gives that body no appropriation for employment of inspectors. As a result the rules and regulations adopted last year by the commission, following a hearing, are difficult to enforce except where leaders of the industry cooperate with the commission. A bill to repeal the present law already is pending in the legislature.



### **Brodie Meter Offices In Southwest Enlarged**

Ralph N. Brodie Co., Inc., manufacturers of petroleum meters and accessories exclusively, have recently occupied new and larger quarters at 2815 Canton St., Dallas, Texas.

The expansion of this important divisional office, under the direction of J. J. Kropp, district manager, will provide greatly increased and complete sales and service facilities to the petroleum industry throughout the southwest.



### **Knox Butane Gas Co. Plans Bulk Plant**

Knox Butane Gas Co., Knoxville, Tenn., C. J. Trent, manager, is planning to erect a large butane bulk storage plant this spring to take care of its increased business.

## WE SELL

### 6 Grades of Liquefied PETROLEUM GAS ...

- All products are free of moisture and meet Underwriters' Laboratory specifications.

Produced under rigid control by Standard Oil Company of California in its most complete plant.

We also offer carrier tanks, cylinders and equipment for export shipments.

*Complete details on request*

**Imperial Gas Company**

4212 S. Broadway

Los Angeles



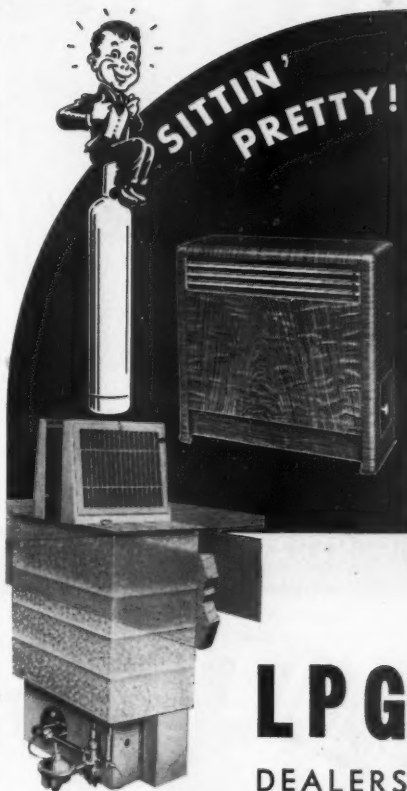
## FABRIFORM MEANS UNIFORM

Our modern shop manufactures heads which enables us to make 1 or 100 tanks identical in quality and workmanship. Tanks, large or small, made to order, plus our stock of standard tanks, guarantees continued, rapid delivery.

**Fabriform Steel Products Co.**

4900 Cecelia Street

Bell (Los Angeles), California



# LPG

## DEALERS

who sell "PACIFIC" Gas Heating Appliances have a big "edge" on competition! They're "sittin' pretty" with a COMPLETE line of Console Heaters, Floor Furnaces, Gas Steam Radiators, Wall Heaters, Forced-Air Furnaces, Water Heaters . . . appliances of highest efficiency, eye-appeal and dollar value. Write TODAY for free Literature and the "PACIFIC" DEALER SET-UP. Dept. BN-5.



# EXTRA LOADS

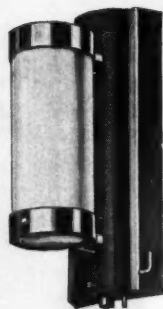
Gas lighting is on the threshold of a great new popularity — it's "going places" thanks to the modern new Humphrey glare-proof Opalites.



Junior Opalite Model

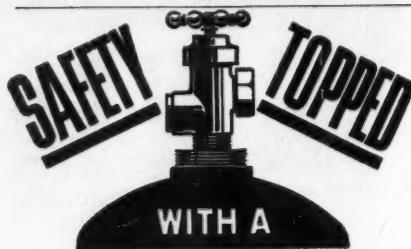
Already this extra market for Liquefied Petroleum Gas is opening the way for bigger lighting loads.

For stores, offices, homes, Humphrey Opalites offer plenty of soft, restful light. They're inexpensive, dependable, and built of materials that will keep their beauty for many years. Send for complete information.



HUMPHREY OPALITE

**GENERAL GAS LIGHT CO.**  
KALAMAZOO, MICHIGAN



## KEROTEST PROPANE-BUTANE CYLINDER VALVE

Automatic spring safety vent releases *only* excess pressure.

Diaphragm packless construction assures long service—low maintenance. **WRITE for Catalog**

**KEROTEST MANUFACTURING COMPANY**  
PITTSBURGH, PA

## Bottled Gas Serves Houseboat Owners on Biscayne Bay

Spread over the shallow water of Biscayne Bay, off the Florida shore, is a group of houseboats which makes up an exclusive colony known as the Quarterdeck Club. The inhabitants of this American Venice settled here because they wanted to "get away from it all."

In their efforts to get away from it all they did not forget the nicer luxuries of finer living. Many of the houseboats here rely on bottled gas for refrigeration and cooking although most of the houses are equipped with their own electric light plants.

The bottled gas Servel Electrolux refrigerators assist in many ways to make life here more complete. Because the houses are situated over the water it is necessary for the members to get to the mainland by boat to order stocks of fresh food which are readily protected from the tropical heat in the gas refrigerator.

The unique colony consists of green and white shacks set on piles imbedded in the shallow flats where the water is but two to seven feet deep. Rental, from the State, is reasonable, costing only \$1 per acre a year. Members rent five to 25 acres and spend \$1000 to \$6000 in erecting their shacks. Membership is by invitation only, costing \$150 and no annual dues.

## N.B.F.U. Issues Pamphlet On Air Conditioning

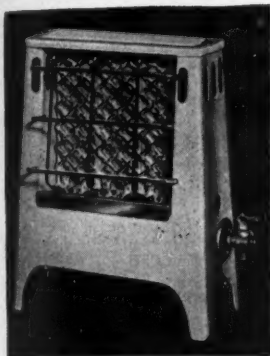
The National Board of Fire Underwriters has prepared a set of standards for the installation of air conditioning and ventilating systems in other than residences that will be of interest to the LP-Gas industry. It is designated as Pamphlet No. 90.

Those interested may obtain copies by writing to the Underwriters at 65 John St., New York City.



## PEERLESS

Offers Bottled Gas Heaters of Highest Quality and Efficiency



No. 7624

BATHROOM HEATER

WRITE FOR CATALOG TODAY!

PEERLESS MANUFACTURING CORP.  
14th and Ormsby Streets LOUISVILLE, KY.



## PROTECT YOUR INVESTMENT

An investment in an Algas Butane Carburetor pays out in important savings on engine maintenance, fuel and oil . . . protected by the Algas reputation for better engineering, better performance, consistent service.

Investigate Algas first!

**American Liquid Gas Corp.**

1109 SANTA FE AVENUE  
LOS ANGELES, CALIF.



## VULCAN RESTAURANT RANGE

--a quick load builder--as easily installed as a domestic range.

Here's a complete unit ideal for restaurants, lunch wagons, and roadside stands. Has specially designed LPG burners, oven heat control, large insulated ovens, short order and solid top, combination griddle and ceramic broiler! Hooks up to 3/4" line.

Made in sixteen styles and sizes, in 14 types from 4-burner, single-oven unit up to No. 4813-1 shown above.

Heavily built, high quality throughout—large capacity in small space.

Write for Commercial Load Building Bulletin LPG415. Free to LPG Dealers

## STANDARD Gas Equipment Corporation

18 East 41st Street, New York

Boston, Philadelphia, Baltimore, Aurora, Ill.

Chicago, New Orleans, Los Angeles

Please send me Commercial Load Building Bulletin LPG415.

Name.....

Company.....

Address.....

City.....State.....

# F & E

## MELTING FURNACES AND TORCHES

The 20th century  
equipment for the  
modern plumber.

Write for full infor-  
mation on our com-  
plete line of fast and  
efficient burners and  
torches.

# F & E

**MANUFACTURING CO.**  
P. O. Box D Centerville, Calif.

**NEW!**

**Portable B-P Turbine  
Pump by Dayton-Dowd**

*Fits in Driver's Cab.*



Single Phase, 110 volt,  $\frac{3}{4}$  HP  
Explosion Proof Motor

### FIELD-TESTED PUMP FOR L.P.G.

- This **LIGHT-WEIGHT** ... 135 lbs. ... **COM-  
PACT** ... 20" x 16" x 11" ... **DAYTON-DOWD  
TURBINE PUMP CUTS COST** ... refills 100 lb.  
cylinder in 6 min. av.

A proven **SELF CONTAINED** unit ... with-  
stands **ROUGHEST USAGE** ... switch and  
motor **EXPLOSION-PROOF** ... **WIDE PRES-  
SURE RANGE** up to 80 lbs. ... optional **CAR-  
RYING HANDLE**. Can be carried in any L.P.G.  
tank truck ... economical in cost and opera-  
tion. **WRITE TODAY FOR INFORMATION.**

**THE DAYTON-DOWD CO.**  
QUINCY ILLINOIS

# CLASSIFIED

Classified advertising is set in 6-point type, without border or display, at the rate of 10 cents per word per insertion; minimum charge per insertion \$2. Box numbers for replies count as 5 words. Count as a word each one letter word and each group of figures. Classified advertising is only accepted when payment accompanies order. Copy and payment must reach publisher's office prior to 10th of month preceding publication.

**NOTICE:** In response to many requests, **BUTANE-PROPANE News** will carry classified advertising, beginning with the June issue. Classifications to be accepted will include: "Employment Wanted", "Employment Offered", "Wanted to Buy", "Machinery or Plants for Sale", "Business Opportunities", etc. Classified advertising should be sent direct to the publisher's office, 1709 West 8th St., Los Angeles, Calif., subject to the terms stated above.

## Missouri Company Shows Butane Brooder

A. E. Elkins of the Elkins Butane Gas Co., Wheaton, Mo., is having a brooder house erected in the street in front of his place of business and will demonstrate the raising of baby chicks with the A. R. Wood butane gas brooder. The brooder house will be 14 ft. by 18 ft. in size and will be of the cold room type, so-called because about half of all four sides of the building will be open, with only curtains to let down in case of rain or snow.

Mr. Elkins plans to secure 600 White Rock baby chicks and grow them to broiler size. A record of all feed and butane gas used will be kept in order to learn how profitable it is to produce broilers by this method.

**BUTANE-PROPANE News**

# CROWN!!

*Automatic Gas Water Heaters*

Approved by A.G.A. for Liquefied Petroleum Gas • A Complete Line

Write for Our Catalog and Sales Handbook

**Crown Heater Co.**  
COMPTON, CALIFORNIA

## Nationwide Service

*Guarantees constant and convenient supply of*

# SHELL

**Liquefied Petroleum Gas**

## END TROUBLE CALLS!



Save yourself money and your customer's good will by ending "moisture troubles" now. A DRYGAS filter will do the work economically and efficiently. Every dealer should put them on every installation.

**DIX MFG. CO.**

603 E. 55th St. Los Angeles

## RUUD WATER HEATERS

ALL TYPES AND SIZES . . .  
COMPLETE SALES HELPS . . .

*Write for Details*

**Ruud Manufacturing Company**  
Pittsburgh, Pa.

## FauceHot

Gas Water Heater with *Aire-Lok*



Aire-Lok is radically NEW, totally DIFFERENT! Reduces stand-by loss by LOCKING OUT cold air without use of gadgets or mechanical attachments; assures remarkable fuel economy. Especially designed, Base equipped, for LP gases. Write for complete details.

**FauceHot HEATER CO.**

LA PORTE

INDIANA

*Chicago office: Peoples Gas Bldg.*

A.S.M.E. - N.B.F.U.

## TANKS

Bastian-Blessing — Roney

Valves & Fittings

I.C.C. Cylinders

**KING BROS. INC.**

3500 S. E. 17th Ave.

Portland, Ore.

## CLOW GASTeam RADIATORS

*Make  
Their Own  
Steam  
Heat with  
Any Gas*



*Send  
for Copy  
of Our  
Architects  
Manual*

**JAMES B. CLOW & SONS**

201-299 North Talman Avenue, Chicago, Ill.

**Harold W. Wickstrom**

*Consulting Engineer*

Reports - Design - Conversions

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4800 Santa Fe Ave.

Los Angeles

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**FOLLOW  
THROUGH!**

**Sell your  
LP-GAS in  
SCAIFE CYLINDERS**

**UNIFORM  
ECONOMICAL  
EASY TO  
HANDLE**

**SCAIFE COMPANY**

General Offices and Works: Oakmont (Pittsburgh District), Pa.  
Representatives in Principal Cities

IN HANDLING BUTANE THE BRODIMATIC IS—

## WITH THE MEN WHO MAN THE METERS

When it comes to greatest accuracy in measuring liquid butane—it's the counter that really counts. A meter can be accurate, its counter can likewise be accurate—but if gallonage readings can be misinterpreted, misfigured or misread, of what value is mechanical accuracy? With Brodie Meters equipped with Brodimatic Counters, there's just no chance for misreadings, no guessed-at totals, no pencil calculations, no mental computations, no possibility for errors. That's why you can always count implicitly on the Brodimatic Counter.

Get the full details on *Brodimatic*  
—the counter that counts for you.

ERROR-PROOF READINGS

GREATEST VISIBILITY

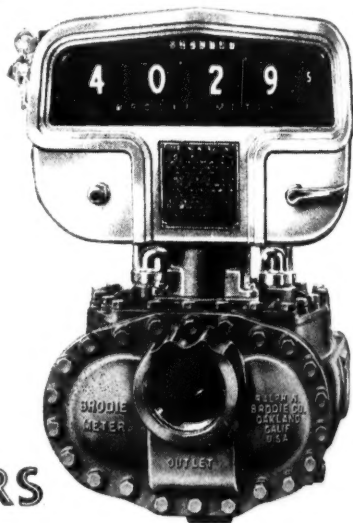
"SNAP-ACTION" NUMERAL CHANGE

LEGIBLE YELLOW NUMBERS

# BRODIE METERS

EQUIPPED WITH

*Counters*



**RALPH N. BRODIE CO., INC.**

945 61st St., OAKLAND, Calif., U.S.A.

Cable Address: "BRODICO" • Division

Offices: Chrysler Building, NEW YORK

CITY • 59 East Van Buren, CHICAGO

2815 Canton Street, DALLAS, TEXAS

Representatives and Stocks in All

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